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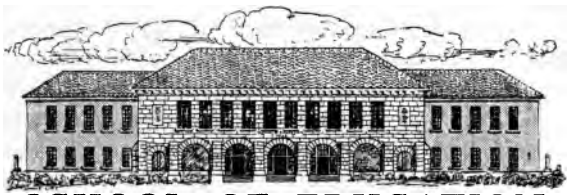

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AN

INTRODUCTION TO THE HISTORY

OF

EDUCATIONAL THEORIES

By OSCAR BROWNING, M.A.

SENIOR FELLOW AND LECTURER OF KING'S COLLEGE, CAMBRIDGE
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NEW YORK AND LONDON
HARPER & BROTHERS PUBLISHERS
1899

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TO THE SOCIETY

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KING'S COLLEGE, CAMBRIDGE

This Book is Dedicated

PREFACE.

THE history of Educational Theories may be of practical use to teachers in two ways: it may show what is the historical ground for retaining existing practices in education or for substituting others; and it may, by telling us what great teachers have attempted, and what great thinkers have conceived as possible in this department, stimulate us to complete their work, or to carry out their principles under easier conditions. The dead hand of spiritual ancestry lays no more sacred duty on posterity than that of realizing under happier circumstances ideas which the stress of the age or the shortness of life has deprived of their accomplishment.

The writer has attempted to give an account at once popular and accurate of the main lines of thought which have been followed upon educational subjects, so far as they are important at the present day. He is conscious of many omissions and shortcomings in the performance of his task. His chief qualification has been that he was for fifteen years a working schoolmaster.

CAMBRIDGE.

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THE principal authorities used are—

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The writer has treated some of the subjects contained in this book in a lecture delivered before the Royal Institution on November 1, 1876, in an article on the "History of Education" in the new edition of the *Encyclopædia Britannica,* and in various articles published in the *Journal of Education.*

HISTORY

OF

EDUCATIONAL THEORIES.

CHAPTER I.

EDUCATION AMONG THE GREEKS—MUSIC AND GYMNASTIC THEORIES OF PLATO AND ARISTOTLE.[1]

To those who begin the study of the historical development of educational theories some preliminary caution is necessary. We shall find that education has always been a favorite problem with philosophers. Those who have wished to reform or to reorganize the world, meeting with many difficulties in dealing with the mass of grown-up people, have turned their eyes to the more hopeful body of ingenuous youth, whose minds are like white paper or pliant wax. If only the rising generation can be directed in the proper path, the regeneration of the human race will be a reality instead of a dream. Experience ought by this time to have taught us that these hopes are mis-

[1] In this chapter I have been under special obligations to Professor A. S. Wilkins's "Essay on National Education in Greece": London, 1873, and to Mr. Nettleship's article on "The Theory of Education in the Republic of Plato," contained in "Hellenica": Rivingtons, 1880.

leading. From one point of view education can do much, from another it can do little or nothing. A child is born into the world with its faculties given to it once for all. No power can be put into it which is not there already. Its parents and a long line of ancestors have determined of what nature it shall be. As it grows up, and we fancy that we can fathom its capabilities and gauge its strength, we forget the countless capacities which lie hidden in the simple germ. The diseases and the eccentricities of our ancestors lie in wait for us at every new epoch of our lives. We pass as it were down the vista of a spectral avenue in which our forefathers stand, ranged in counter lines, ready at the proper moment to lay their chilly hand on their descendant. Each year of life beats and moulds the boy into the likeness of his father.

Again, youth cannot be everything which it promises to be. A choice must be made. A large part of the fascination of boyhood lies in the uncertainty of its future. A teacher is apt to think that his bright pupil may be anything. He shows germs of qualities, any one of which—all of which—he imagines may come to fruit. Yet it is not so. Distinction in one direction can only be obtained by repression in another. A strong nature can only be produced by lopping and pruning the branches which it sends out on all sides into the circumambient air. The human powers are limited. The brain has only a definite capacity, and to work well it must be charged with blood. The quantity of blood is limited, and cannot be drawn to the brain without being taken from some other part, the stomach or the limbs. Emotion, it is true, may be transformed into intellect, the force of passion may be absorbed by

the growing will ; but the physical basis on which the senses, the intellect, the will, and the emotions rest is but a limited quantity for each individual.

To the teacher who has assimilated these important truths there remains yet another difficulty, arising from the struggle of man with his environment. The teacher does his best to develop harmoniously all the faculties of the individual, to create a sound body for the sound mind, to take care that all the fibres of the brain are called into play and roused to full activity, and that their work is properly distributed among the inherited capacities of the pupil. He will consider his object gained if his pupil has attained to the best development of which he is capable, if no powers have been repressed excepting so far as is necessary for the proper activity of others. But suppose that this result has been produced, and no teacher can boast that he has as yet completely produced it, what assurance has he that these qualities will be required by the world ? That moves on its way heedless of individual exceptions. The perfectly educated man may find no place for himself in the economy of things. If we murmur at this the world replies, " The fault is with you ; with all your science you cannot educate as I educate." Consider the new industries of the last fifty years, what necessities have been created by railways and telegraphs. The skill of a pointsman, an engine-driver, or a telegraphist requires qualities and knowledge which probably did not exist before the present century. They have been produced by no school, taught by no masters. As Persius says, the belly was their teacher, the necessity of making a livelihood formed them into these moulds. So, then, we

have this antagonism between the individual and the world. The individual requires something for the full satisfaction of his being; the world requires something else, and will have it. What are we to do? Are we to give the highest education possible irrespective of practical needs, or are we to give up education altogether, and let the world do what it will with its own? This is the first great problem which meets us at the threshold of the subject.

Savage tribes solve the question by adopting, uncompromisingly, the practical view. An Australian or a Zulu is trained for the immediate ends of existence. To be a keen hunter or a successful warrior is the first necessity of his life, and tradition has built up a scheme of education to suit these ends. We will pass over the earlier forms of education—the Chinese, the Indian, the Egyptian, and the Jewish. Little is known about any of them except the Jewish, not enough to make them practically valuable to ourselves. On the other hand the principles of Greek education cannot be omitted. The Greeks were the first to teach education as a science; the results which they produced were admirable. We have a full account both of their ordinary practice and of the ideal schemes sketched by Plato and Aristotle; while their system of education is exercising a considerable effect upon the world at the present day. We cannot understand the history of education since the Renaissance unless we make ourselves acquainted with the Greek and Roman traditions which so profoundly affected Europe at the revival of learning.

Until the time of Alexander the main subjects of education among the Greeks were music and gymnastics,

that is, bodily training and mental culture, music (*μουσική*) or the science of the muses, being divided into the preliminary training of grammar, and music properly so called. At a late period more subjects were introduced, and that series of studies came into use which was known as *ἐγκύκλιος παιδεία*, or "encyclopædia," "orbis doctrinæ," as Seneca calls it. This was composed of the seven arts: grammar, rhetoric, philosophy or dialectic, arithmetic, music, geometry, and astronomy, which, continuing through the Roman period, lasted under the name of Trivium and Quadrivium until the close of the Middle Ages. Not much was taught until the seventh year, and the earliest teaching was by myths. The Greek day began very early, indeed with sunrise; it was interrupted between ten and twelve by the business of the market-place, and the remaining hours were spoken of as afternoon and evening. Boys went to school in the early morning, and a second time after breakfast. They were accompanied through the streets by the *παιδαγωγός*, a faithful slave who had charge of their moral supervision. The literary teaching was followed by athletics, the palæstra by the bath. Six hours a day was regarded both by Greeks and Romans as the proper limit of study. There were occasional holidays, and the hot time of the year was given up to vacation as is still the practice in many countries.

The first duty of a Greek boy was to learn his letters. This was coincident with learning to swim, so that "one who knows neither swimming nor his letters" was the Greek term for an ignoramus. The methods of teaching were very similar to our own; there was the same difficulty of giving the letters a name differing from their

power in sound, the same attempts at shortening labor and making learning easy and without tears. The sophists invented methods of compendious instruction, and the alphabetical tragedy of Callias, which has sometimes been regarded as a satire upon them, is more probably an attempt to teach letters in play. A Greek child had undoubtedly an advantage over us in school books; we have nothing to compare with the grace, beauty, and fun of the Odyssee. Full of charm as it is to an English boy or girl, it must have been far more so to those who breathed the same pure air and gazed on the same blue sea as its hero and its author. Reading was taught with the greatest pains, the utmost care was taken with the intonation of the voice, and the articulation of the throat. We have lost the power of distinguishing between accent and quantity. The Greeks did not acquire it without long and anxious training of the ear and the vocal organs. This was the duty of the *phonascus*. Homer was the common study of all Greeks. The Iliad and Odyssee were at once the Bible, the Shakespeare, the Robinson Crusoe, and the Arabian Nights of the Hellenic race. Long passages and indeed whole books were learned by heart. The Greek, as a rule, learned no language but his own. Next to reading and repetition came writing, which was carefully taught. Composition naturally followed, and the burden of correcting exercises, which still weighs down the backs of schoolmasters, dates from these early times. Closely connected with reading and writing is the art of reckoning, and the science of numbers leads us easily to music. Plato considered arithmetic as the best spur to a sleepy and uninstructed spirit; we see from the Platonic dialogues how mathematical problems employed the mind

and thoughts of young Athenians. Many of the more difficult arithmetical operations were solved by geometrical methods, but the Greeks carried the art of teaching numbers to considerable refinement. They used the abacus, and had an elaborate method of finger reckoning, which was serviceable up to 10,000. Drawing was the crowning accomplishment to this vestibule of training.

By the time the fourteenth year was completed, the Greek boy would have begun to devote himself seriously to the practice of athletics. The ardor shown in their pursuit by the Greeks and Romans is often used as an argument for our exaggerated devotion to them at the present day. There is no doubt that by this double attention to the welfare of mind and body, the Greeks became the most beautiful as well as the most gifted of mankind. But it is a question whether in our modern race after cups and colors we are following the Greeks at all, and not rather the factions of the Roman circus and the corruption of the lower Empire. Much as the Greeks prized athletic distinction, they held professional athletes in very little honor. They would have regarded with contempt a gentleman who thought it a desirable object in life to be a prize-fighter, a gamekeeper, or a coachman. The antagonism between work and games was a practical difficulty to them as it is to us. It was indeed in the palæstra that Socrates found his readiest hearers and dispensed his abstrusest lore. Can we imagine a dialogue such as the Theætetus being held in an English cricket-ground, with the players waiting for their innings? But Euripides denounces the race of athletes in strong language, and there are other signs that in his time the danger of their excessive cultivation was being recognized. The enthu-

power in sound, the same attempts at shortening labor and making learning easy and without tears. The sophists invented methods of compendious instruction, and the alphabetical tragedy of Callias, which has sometimes been regarded as a satire upon them, is more probably an attempt to teach letters in play. A Greek child had undoubtedly an advantage over us in school books; we have nothing to compare with the grace, beauty, and fun of the Odyssee. Full of charm as it is to an English boy or girl, it must have been far more so to those who breathed the same pure air and gazed on the same blue sea as its hero and its author. Reading was taught with the greatest pains, the utmost care was taken with the intonation of the voice, and the articulation of the throat. We have lost the power of distinguishing between accent and quantity. The Greeks did not acquire it without long and anxious training of the ear and the vocal organs. This was the duty of the *phonascus*. Homer was the common study of all Greeks. The Iliad and Odyssee were at once the Bible, the Shakespeare, the Robinson Crusoe, and the Arabian Nights of the Hellenic race. Long passages and indeed whole books were learned by heart. The Greek, as a rule, learned no language but his own. Next to reading and repetition came writing, which was carefully taught. Composition naturally followed, and the burden of correcting exercises, which still weighs down the backs of schoolmasters, dates from these early times. Closely connected with reading and writing is the art of reckoning, and the science of numbers leads us easily to music. Plato considered arithmetic as the best spur to a sleepy and uninstructed spirit; we see from the Platonic dialogues how mathematical problems employed the mind

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siasm shown by Homer and Pindar for bodily strength had become weaker in the days of Pericles. The Greeks did not think, as we are apt to do, that athletics are the best guarantee for manliness of character and the best safeguard against effeminacy. They knew that the mind and body cannot be profitably exercised at the same time, and that the mind and not the body is the seat of the higher aspirations. The Spartans, whose name has become proverbial for hardiness, were regarded by the Athenians as brutalized by their training.

As gymnastics was intended to harmonize the powers of the body, so music was to order and to regulate the soul. It is difficult to understand what the Greeks meant by music. If we could fully realize this we should have made their system of education as clear to us as our own. In one sense music is equivalent to culture, to the whole range of studies which soften and refine the mind and character. In another sense it is undoubtedly the same as what we mean by music. Greek music differed from our own in not being polyphonic. The Greeks would not have understood or have appreciated the various instruments, and the mingled effects of an orchestra. They were accustomed to hear only one instrument at a time, or at the most an instrument accompanying the voice. But, on the other hand, the Greek had a clearer perception of the divisions of the scale. A Greek who could not distinguish between semi-tones, or even between quarter-tones, would have been thought as ignorant as a classical scholar who quoted Homer with a false quantity. Also they were far more sensitive than laymen usually are among ourselves to the essential characteristics of different keys. We have abundant evidence that every Greek boy was carefully

trained in the theory and practice of the musical art, and that it was regarded by masters of all schools as of the first importance to intellect and morality. Plato, Aristotle, and Aristophanes agree in this. Music was not only the gymnastic of the ear and the voice, but of the spirit, and the foundation of all the higher life. Its rhythm and harmony penetrated into the soul and worked powerfully upon it. In union with poetry it led the soul to virtue and inspired it with courage. It has been well said that if a Greek youth had by continuous practice become stronger than a bull, more truthful than the Godhead, and wiser than the most learned Egyptian priest, his fellow-citizens would shrug their shoulders at him with contempt if he did not possess what a series of music and gymnastics can alone give—a sense of gracefulness and proportion

This careful musical training might have been expected by a Greek to do that service for the mind which in later days has been attributed with much less reason to accurate scholarship. The development of a sense of harmony, the using of the mind to decide on subtle questions by the delicate judgment of taste rather than by the coarser balances of reason and argument—all this might be expected to proceed from the nice appreciation of the character of sounds, and of the ethical effect of melodies. Plato in his "Republic" defends the power of music, "because rhythm and harmony find their way into the secret places of the soul, on which they mightily fasten, bearing grace in their movements, and making the soul graceful of him who is rightly educated, or ungraceful if ill-educated; and also because he who has received this true education of the inner being will most shrewdly perceive omissions or faults in art or nature, and with a true taste, while he

praises, and rejoices over, and receives into his soul the good, and becomes noble and good, he will justly blame and hate the bad now in the days of his youth, even before he is able to know the reason of the thing; and when reason comes he will recognize and salute her as a friend with whom his education has made him long familiar." ("Rep." iii. 401–2, Jowett's Translation.) Nothing shows the importance which the Greeks attached to music more than their strong condemnation of the flute as compared with the lyre. The one was the basis of true wisdom and morality, the other the instrument of general laxity and corruption. It would be difficult for the most ardent defender of classics to condemn in stronger language the shallowness and superficiality of "modern sides." The influence of music was developed still further by the practice of singing and dancing.

Bearing in mind these general principles of Greek education, it will be more easy for us to follow the training which Plato prescribes for his ideal state. According to him education is nurture (*τροφή*). It is very powerful, it can determine whether a nature shall be wild and malevolent, or rich with benefits to mankind. But it includes not merely instruction or training, but all the influences which are brought to bear upon the soul. We must approach the problem with a psychological analysis. The soul is made up of three parts: 1, the appetite (*ἐπιθυμία*), which is wild but capable of being tamed; 2, the spirit (*θυμός*), the element of courage, which may be enlisted on the side either of good or evil; 3, the philosophic element, the source of gentleness, of sociability, of love, of refinement, of culture, and of wisdom. Now the duty of education is to control the appetite, and so to

balance the other elements of the soul that each may tend to the perfection of the other. If the philosophic side of the soul is too much encouraged its gentleness may become effeminacy, its sensitiveness irritability, its simple love be changed into feverish desire. On the other hand the exaggerated practice of athletics will swallow up the intellect, courage will become brutality, and high spirit insolence. The business of education is to reconcile these two elements in harmonious proportion.

Plato finds in the State the same elements that he discovers in the individual. The State was merely the citizen writ large. Philosophers represented the wisdom of the State, warriors its courage, the mob its passions, which were to be kept under due control. In the harmony of these various members lies justice, the goal and object of its constitution. All education is to be controlled by the State. Even marriages are to be directed by it. Children are to remain in the family till the end of the sixth year, but even then their nurture and direction is carefully prescribed. They are to be taught morality by myths and tales. Plato considers the cardinal virtues of conduct to be: honor to parents, love of fellow-citizens, courage, truthfulness, self-control;[1] and he evidently considers the education of character to be more important than the usual rudiments of technical education, reading, writing, and arithmetic. From the seventh year the child belongs to the State. Till the tenth year the training is to be principally in gymnastic, which is, however, to be continued through the whole life. From the tenth to the thirteenth year the child is taught to read and write; from the fourteenth to the sixteenth he learns

[1] "Hellenica," p. 97.

poetry and music. Plato's sense of the importance of music has been already mentioned, but we may here emphasize the close connection which he sees between it and the stability of order in the State. "The introduction of a new kind of music," he says, "must be shunned as imperilling the whole State, since styles of music are never disturbed without affecting the most important political institutions." "It is here in music that our guardians should erect their guard-house, for it is here that lawlessness easily creeps in unawares, in the guise of amusement and professing to do no mischief. Gradually gaining a lodgment, it quietly insinuates itself into manners and customs. From thence it issues in greater force and makes its way into mutual compacts; from compacts it goes on to attack laws and constitutions, displaying the utmost impudence until it ends by overturning everything, both in public and in private." Plato wishes that the years from seventeen to twenty shall be devoted mainly to athletics as a preparation for the art of war. But he carefully distinguishes between the gymnastic training of the professional athlete and that of the free-born citizen. "The habit of body cultivated by trained fighters in the palæstra is a sleepy kind of regimen, and produces a precarious state of health. Do you not observe that men in regular training sleep their life away, and if they depart only slightly from the prescribed diet are attacked by serious maladies in their worst form? A better conceived regimen is required for our athletes of war, who must be wakeful like watch dogs, and possess the utmost quickness both of eye and ear; and who are so exposed when on service to variations in the water they drink, and in the rest of their food, also vicissitudes of sultry heats and

wintry storms, that it will not do for them to be of precarious health. The best gymnastic will be sister to the music we described a little while ago, a simple moderate system, especially that assigned to our fighting men."

At the age of twenty men are to be chosen for their different employments; the next ten years they are to devote to the study of the sciences coupled with military service, and the formation of the character by practical life; the following five years are to be entirely devoted to dialectic. Of this it is difficult to give an account without going more deeply into the Platonic philosophy than would suit our purpose. "It lies," Plato says, "like a coping stone upon the top of the sciences. It is the queen science which holds the key of all the rest. It carries back its hypotheses to the very first principle of all in order to establish them firmly. Finding the eye of the soul absolutely buried in a swamp of barbarous ignorance, it gently draws and raises it upward, employing as handmaids in this work of revolution the arts which we have discussed." "The dialectician is he who takes thoughtful account of the essence of each thing. As far as a person has no just account to give to himself and to others, so far he fails to exercise pure reason on the subject." "Unless a person can strictly define by a process of thought the essential form of the good, abstracted from everything else; and unless he can fight his way as it were through all objections, studying to disprove them, not by the rules of opinion but by those of real existence, and unless in all these conflicts he travels to his conclusion without making one false step in his train of thought, unless he does all this, shall you not assert that he knows not the essence of good, nor any other good thing, and

that any phantom of it which he may chance to apprehend is the fruit of opinion and not of science, and that he dreams and sleeps away his present life, and never wakes on this side of that future world in which he is doomed to sleep forever." The fifteen years of training in sciences and dialectics are to be followed, in Plato's scheme, by fifteen more years of public service. To use the words of Mr. Nettleship,[1] "Not till he has passed through this trial, and shown himself foremost both in action and knowledge, is he to be made 'to turn the eye of his soul upward, and look on the very good itself which is the universal source of light.' Then at last the world will be open before his mind, ordered and intelligible, connected and pervaded by a single principle, which he can trace in many forms and combinations, but can distinguish from them all. Then the shadows and images of everyday life will acquire their true meaning, for he will see through them and over them to the realities which they reflect. The isolated and self-contradictory maxims of popular morality will interpret themselves into fragments of a single perfection which human life suggests although it does not realize it. The separate sciences will cease to talk 'in dreams,' and will point beyond themselves to the waking vision of an absolute being. Philosophy will be not a cunning device of words or an occupation for a listless hour, but the articulate language of truth which a lifetime is too short for learning. Only eternity can interpret that language fully, but to understand it is the nearest approach to heaven on earth, and to study it is true education."

There are important differences between the teaching of

[1] "Hellenica," p. 179.

Aristotle and that of Plato. Aristotle was before everything a scientific and practical inquirer.[1] Instead of considering, as Plato did, ideas as the only real existences which underlie phenomena, he regarded them as abstractions from phenomena. Men, he said, have souls, and there are traces of souls in animals, but men have reason, which animals have not. This reason is partly active and partly passive, and is to some extent subordinate to the lower appetites. Now the highest object of man is the attainment of happiness, and the highest happiness of man is to be reached by perfect virtue. The highest virtue is that of the reason. This is realized in the life of contemplation, which is higher than the life of action. We cannot as mortal men attain to it, but in proportion as we do attain to it so do we become divine. The end of life, and therefore of education, is the attainment at once of intellectual and of moral virtue, which bring with them the truest pleasures of which man is capable. The means of obtaining this are three—nature, habit, and instruction. In education, then, which presumes natural gifts on which to work, habit must come first, instruction second. The semi-rational part of our nature develops before the reasoning part; the body develops before both. Therefore the order of education must be—1, bodily; 2, moral; 3, scientific. Of bodily occupations Aristotle carefully excludes those which are fit only for craftsmen or slaves. The city states for which he wrote were in fact aristocracies, resting on what Curtius calls a "broad and convenient basis of personal servitude." First then

[1] Aristotle's views on education are found in the "Ethics" and "Politics." There is some difference in the views expressed in the two books.

in education will come gymnastics, but this is not intended to make men athletes, to develop mere brute force, but to produce courage, which is a mean between the unbridled wildness of the animal and the sluggishness of the coward. Too much weight must not be given to athletics lest the child be spoiled, and body and mind must not be hard-worked at the same time. Gymnastics are only regarded as a preparation for the education of the soul. This is done by music. But here also we must have moderation. The student must not degenerate into an artist. An artist practises music not for his own perfection but to give pleasure, and that not always of the highest kind. Music in general education is always to be used for one of three purposes: either for education proper, or for the training of the affections, or for the rational employment of leisure. And it will be found that different kinds of melodies have very different effects in these respects. Next to music comes the art of drawing, which will encourage and develop a sense of the beautiful. Next is mathematics, which is purely intellectual and has no effect on the moral nature. Dialectic is the foundation of scientific training. Its use is of three kinds: 1, as a gymnastic of the mind; 2, as a means of intercourse with others for the purpose of persuading them; 3, for the learning of philosophic sciences, so as more readily to distinguish between what is true and what is false. It leads the way to higher speculation, and helps to the knowledge of each separate detail. Connected with dialectic is rhetoric, the object of which is not to persuade but to know in each case what is useful for the obtaining of credit and belief. Philosophy, according to Aristotle, has for its object the knowledge of the first

cause, and by this we learn to know everything else. The highest of the practical sciences is politics, which has for its object the attainment of the highest good—that is, happiness in the State. It requires a deep moral nature for its pursuit, and therefore is not suited for the study of youth.

Such is a general sketch of Greek education both from its practical and its ideal side. There is much in it that may be useful to ourselves, but much is omitted to which we attach great importance. There is no learning of languages, no arrangements are made for instruction in Persian, Latin, Phœnician, or Egyptian. There is no history in the curriculum, unless we class legends under this head. The Greeks did not, like the Jews and other eastern nations, give to their own history the sanctity of a religion, and keep it continually before their eyes and ears. We must never forget that the society of Greece was a society served by slaves, and also that it was developed in city states in which every one was known by every one else, and which might not exceed a number which could be conveniently addressed by a single person. In its control of personal freedom by public opinion a Greek State resembled the Geneva of Calvin, or the Boston of the Puritans, and still more the city republics of Italy in the Middle Ages. No wonder that Greek learning spread so rapidly among men, who read in it the apotheosis of a society which had so many analogies with what they saw around them. An education such as I have described produced the most gifted and attractive nation that ever lived upon the earth. Whether we would understand the course which European culture has taken, or the strongest influences which underlie the daily life of

modern Europe, we must recur again and again to the head-spring of Hellenic thought.

CHAPTER II.

ROMAN EDUCATION—ORATORY.

In passing from Greece to Rome we find a new ideal of the perfection of man. Hellenism, the most important factor in our modern civilization, is almost synonymous with our modern conception of culture. Rome has left us but one intellectual product, a system of organized and carefully developed law ; but Roman law was the natural outcome of her national life as the ruler and civilizer of the world. The object of Greek education was to foster to its highest development the inner life of man, to form the philosopher who should guide the man of action. Roman education aimed at no higher object than to mould the man of action himself, to make a citizen fit, in the language of Milton, to " perform justly, skilfully, and magnanimously, all the offices, both public and private, of peace and war." At a later period, when Greece had taken her conqueror captive, when Cicero spent the leisure of his retirement in writing philosophical primers for the use of his countrymen, when a knowledge of Greek was a necessity of good education, and when Rome was filled, as Europe was at a later period, with hungry professors of Hellenic learning, this practical training took a more intellectual shape, and became crystallized into oratory. The treatises of Cicero, of Seneca, of Quintilian, on the

education of the orator, are disquisitions on the training of the perfect man.

Roman education in its two aspects has profoundly affected two of the greatest nations of the modern world, the English and the French. The purest type of the English Whig, fond of freedom, but fonder of his order, inspired with a traditional respect for learning and learned men, educated at a public school and a university, writing Latin verses in his leisure hours, reflecting with subjective intensity on the bearing in success and failure which best becomes a public man, resembles no body of men so closely as Cicero and his correspondents; while France, so long the home of the imperial schools of rhetoric, when they had perished elsewhere, has steeped her language in the later Roman eloquence. The Greek and Roman ideals are the complement of each other. On the one side, man beautiful, active, clever, receptive, emotional; quick to feel and to show his feeling, to argue, to refine; greedy of the pleasures of the world, if a little neglectful of its duties; fearing restraint as an unjust stinting of the bounty of nature; inquiring into every secret; strongly attached to the things of this life, but elevated by an unabated striving after the highest ideal; setting no value but on faultless abstractions, and seeing reality only in heaven, on earth mere shadows, phantoms, and copies of the unseen. On the other side, man practical, energetic, eloquent, tinged but not imbued with philosophy; trained to spare neither himself nor others; reading and thinking only with an apology; best engaged in defending a political principle, in maintaining with gravity and solemnity the conservation of ancient freedom, in leading armies through unexplored deserts, estab-

lishing roads, fortresses, settlements, as the results of conquest, or in ordering and superintending the slow, certain, and utter annihilation of some enemy of Rome. Has the Christian world ever surpassed these types? Can we produce anything by education in modern times except by combining, blending, and modifying the self-culture of the Greek and the self-sacrifice of the Roman?

One of the chief characteristics of Roman education was the influence of the mother. The Roman wife was the worthy companion of her husband, and she was often the best stimulus and example to her sons. In early times, before the development of regular schools, children were prepared for future life by the society of their fathers. They sat with them at table and heard, in decent and respectful silence, of the services which their elders had rendered to the State; they accompanied them to the senate, and learned how to hold their tongue while others were talking; and how to speak when the proper occasion should arrive. As wealth and luxury increased, the home became less secure as a training-place for youth. The *pædagogus* was borrowed from Greece, but he was held in high honor, and though a slave, was intrusted with the moral and intellectual education of his charge. In the school the rod was freely used. The severity of Orbilius was no exception to the general rule. There was a short holiday of five days at the Quinquatrian feast of Minerva, answering to our Easter, and at the Saturnalia, answering to our Christmas; but during the summer months school was altogether suspended. The boys were absent from Rome in the unhealthy season, or were engaged in their duties on the soil.

At the age of seven the child was committed to the

grammatistes, or *literator*, to learn the first elements of reading and writing. Horace tells us how the lads went through the streets of Rome with their slate and satchel on their arm, carrying the master's fee carefully on the middle day of the eight months during which they went to school. Reading was taught by the syllabic method, that is, by explaining the power of the letters in combination before their individual characteristics, a method to which Quintilian was opposed. Writing was taught by inscribing a copy on a waxen tablet, and allowing the pupil to follow the furrow of the letters with the stylus. Then followed the proper pronunciation and accent of the words. Selected passages were learned by heart. By degrees the easier poets were read and explained, great pains being always taken with the exact pronunciation. Next to reading and writing came reckoning. The fingers were made great use of. Each joint and bend of the finger was made to signify a certain value, and the pupil was expected to follow the twinkling motion of the teacher's hands as he represented number after number. The modern Italian game of *mora* is a survival of this capacity. The abacus of stones for reckoning was also largely employed.

This preliminary training lasted from the seventh to the twelfth year. The children were then handed over to the *grammaticus* or *literatus*. The study of Greek was now added to that of Latin, etymology was taught, probably a very false one, and the rules of syntax and composition. The explanation of the poets was used for the formation of moral principle—Livius Andronicus in Latin, the Odyssee of Homer in Greek. Vergil, Cicero, and Æsop were studied in those days as in our own. Orthography and grammar were carefully inculcated ; whole poems and

orations were learned by heart. Nor was history neglected. Atticus, the friend of Cicero, was so well acquainted with Roman history, that he knew the laws, the treaties, and the momentous events which formed the fabric of his country's annals. The storied past filled him with traditions of the inheritance of duty of each noble stock. The first steps were made toward the practice of eloquence. As the *literator* had prepared the way for the *grammaticus*, so the *grammaticus* smoothed the path for the *rhetor*. At the age of fifteen or sixteen the young Roman assumed the dress of manhood. He was no longer treated as a child, and kept in strict discipline with stripes. He now chose his profession, either the life of a country gentleman devoted to the patriotic duty of agriculture, or the army, or the senate, or the forum, or that complex of pursuits to which the noble Roman was called by virtue of his birth.

The training in the first three are beyond our purpose, but forensic education held a position of gradually increasing importance, and at last absorbed into itself the whole of Roman instruction. Rhetoric was to Roman education what music was to Greek. Both terms are hard for us to understand now that we have learned to use them with such different meanings. No learning was valued by the Romans unless it was seen to have a practical purpose. Philosophy was regarded rather as a danger than as a help. Tacitus says of Agricola, "retinuit quod est difficillimum ex philosophia modum." "He succeeded in the most difficult exercise of self-command, he devoted himself to the study of philosophy, and yet rescued from its influence the qualities of a man of action." Those who labored for the spiritual development of their

fellow-countrymen saw that rhetoric might be made to include almost every branch of intellectual activity. Presented under this guise it might be accepted by the Romans, when in the simple nakedness of art or philosophy it was certain to be refused. The first special school for Italian rhetoric was opened by Lucius Plotius Gallus in the year 90 B.C. Cicero and the men of his time gave themselves unending trouble to acquire the facility by which they gained their reputation. It is scarcely to be wondered if censors, as the guardians of public morals, showed some anxiety at the introduction and the spread of this new learning.

The theoretical writers of this earlier stage of Roman education were Cato the Censor and Cicero, and it will be well to give a short account of the opinions they have left us on the subject. Quintilian tells us that Cato (235–149 B.C.) was the first Roman writer on education. His treatise is unfortunately lost, but we may infer its contents from other sources. Cato was a strong Conservative. He was the champion of the "good old times" of Roman simplicity. He valued the reputation of a good husband and father above that of a good senator. He kept strict discipline in his house. His sons were brought up in the rude activity of outdoor life. At the same time he taught them the great deeds of their country's history, and preserved with the strictest purity the reverence which is due to the young. The foundation of an orator must, he said, be laid in character. He recommended a country life as the parent of brave soldiers and sturdy citizens. He opposed with all his might the new Greek learning, and saw in it the coming destruction of the State. "Believe me," he wrote to his son as if a

soothsayer had said it, "that the Greeks are a good-for-nothing and unimprovable race. If they disseminate their literature among us it will destroy everything; but, still worse, if they send their doctors among us, for they have bound themselves by a solemn oath to kill the barbarians and the Romans." He himself learned Greek late in life, but this did not change his opinions. A *homo elegans*, "a man of culture," was his abhorrence. Practical activity is the whole duty of man. His nature rusts like iron if it is not used.

Very different were the principles of Cicero, who stands, whatever we may think of his character, as the first fruit of the union of Greek and Roman thought and learning. What he tells us about education has principal reference to the education of the orator, and there is this inconvenience in his remarks, that we cannot tell when he is expressing his own opinions and when he is merely translating the commonplaces of some Greek philosopher. The aim of education is the perfection of the individual. If all citizens are developed to the highest level of their powers, how blessed will be the State that contains them! The teacher is to temper severity with mildness. He is to be equal in his punishment, and never speak or strike in anger. Religion is of the highest importance. The gods are the masters and directors of human affairs. Education is to begin with the earliest childhood. We must turn to account the games of children, and be particularly careful of the company by which they are surrounded. We must take great pains to develop their memory, and for this purpose passages of Greek and Roman writers are to be learned by heart. We shall find systems of artificial memory useful, in which the sight is

made to assist the faculty of the brain. In choosing a profession the young man is to follow the guidance of his nature after he has carefully proved his powers and capacities. We must protect him against the destructive attacks of the passions; and if he is destined for public life we must feed his ambition and love of distinction. The orator, whose education Cicero minutely describes, must not be gifted merely with readiness of tongue and fluency of speech, nor with the natural gifts of stature, presence, and melody of voice. We should find in him the acuteness of a dialectician, the thought of a philosopher, the expression of a poet, the gesticulation of a great actor. Therefore nothing is less common than a consummate orator. Education can only develop innate and natural gifts. Exuberance in the young is better than poverty. The future orator must practise himself in extempore speaking, he must be accustomed to write down the thoughts which occur to him in their first clearness and precision, and afterward polish them with proper copiousness and harmony. He will from boyhood have made himself familiar with the best models, so that when he is placed under a master he shall almost be fit to walk alone. Besides this careful cultivation of natural gifts, he must acquire an amount of knowledge in many different fields. He must be at home in jurisprudence, history, and philosophy. The contemplation of great models must keep a high standard ever before his eyes. How can he be a statesman if he is ignorant of the history of his country! But philosophy is the crown of all. It is the school of virtue. Cicero knew that he was here recommending what few of his readers had studied so carefully as himself. Last of all, the study of Greek is of the highest im-

portance. Cicero took care that his sons should practise not only philosophy but eloquence, under Greek masters. He cared little for natural science, and was supremely ignorant of it, but he followed his Greek masters in regarding politics as the queen of sciences, that to which all others tended. But it was a study for the ripe and mature spirit, and not for youth. Cicero forbore to inculcate the Greek practice of gymnastics. He was not ignorant of their darker side as the fosterers of immorality. Such was the ideal which Cicero placed before himself; a compromise, as we might have expected, between old and new—the Roman training mellowed and illumined by the higher knowledge of which he had himself tasted.

Let us now see how this fusion of two ideals reached the perfection of system in the teaching of Quintilian. Roman education became fully organized with the centralization of the empire. Like the government, of which it formed a part, it reached its highest excellence under Trajan, Hadrian, and the Antonines. Nerva ordered the children of poor parents to be educated throughout Italy without expense, and Antoninus Pius erected in honor of his wife Faustina an educational institute for poor girls. The education given by the *literati* began to mould itself into the seven liberal arts, which lasted throughout the Middle Ages, as the subject of education—the trivium and quadrivium, grammar, dialectic, rhetoric, geometry, arithmetic, astronomy, and music. In the work of Quintilian on the education of an orator, we have a full account of Roman education at this period. Quintilian was born 42 A.D., at Calahorra in Spain. He came to Rome at an early age, and was educated to be a consummate speaker. He afterward exchanged the practice for the

teaching of his profession, and for twenty years educated the most distinguished Romans in his art. He received from the Emperor the broad purple stripe of senatorial dignity, and was raised to consular rank. He was the first teacher who was paid by the State, and had the title of Professor of Eloquence. His treatise was written after his retirement from active life. Although it professes to treat merely of the education of the orator, yet it deals incidentally with most of the questions which refer to the education of the perfect man.

Quintilian begins by a plea for the teachableness of youth in general. Activity of mind, he says, is natural in man, and if the fair promise of youth is often not fulfilled, it must be attributed rather to defective education than to want of natural power. We must be full of hope for the future of every child, and our care must begin at the very earliest age. So we must be careful as to the nurses we provide for our children. Their words are doubtless important, but so is their pronunciation. By the defective instruction of a provincial nurse, faults may be acquired in early childhood which can never be eradicated. Also the foster children among whom your son is to be educated must have the same qualities. It is well if you can get for your son a *pædagogus* who is a man of learning, but if this is impossible, let him at least know that he is ignorant, and not be puffed up with the pretence of knowledge which he does not possess. It is the duty of the *pædagogus* to correct the faults of the nurse. Greek should be taught before Latin—one is a subject of teaching, the other of insensible acquisition. But Latin must follow at a short interval or else foreign pronunciation and foreign idioms will mar the purity of the mother

tongue. There is no reason for deferring instruction for the first seven years of life. The memory is most tenacious in early childhood, and it is unreasonable not to make use of it while we have it. But this must be done with tenderness and sympathy. Learning must be a pleasure and not a burden. If the child is not disposed for one kind of study, try him with another. A teacher of the highest genius is not wanted in teaching the rudiments to a child. Let us begin with reading. First teach the forms of the separate letters so that the child may know them when he sees them. This is preferable to beginning with the order of the alphabet, or with syllabic sounds. Ivory letters will be found useful helps. Writing is best taught by cutting the letters on a board, and letting the child draw his stylus along the grooves. This is preferable to wax, or to having his hand directed by another person. To write well is a most useful and important accomplishment. All combinations of letters, even the most difficult, must be learned systematically at first, and not be left to puzzle us when they occur. Good reading is taught by beginning slowly and quickening by degrees. In all this Quintilian shows himself in favor of a carefully graduated method, and discards the plunging "in medias res," which has been inculcated by modern educationalists.

By the seventh year a child may have learned to read and write with ease, may be stored with a copious supply of sayings of great men and select passages which he will never forget, and will, above all, have acquired a correct and clear pronunciation—distinct and harmonious—and fit to cope with any difficulty of expression. What is to be done with the child thus educated? Are we to send him to a public school or to keep him at home? This

question was as pressing and as difficult in Quintilian's day as in our own. Quintilian speaks decidedly for the first alternative. The morals of public schools are undoubtedly corrupt, but so may be the morals of the home. In both cases much will depend on good disposition and careful home-training. Quintilian complains that in the corrupt homes of imperial Rome children learn vices before they know that they are vices; effeminate and luxurious, they do not imbibe criminality from schools, but carry it themselves into schools. Again, it is a mistake to suppose that the pupil will derive more care and attention from a single teacher. The best teachers will naturally be found in large schools, and there are many subjects which one man can teach as well to a large class as to a small one. Take pains, of course, to choose your school carefully; expect the master to give individual attention to his pupils, but do not, because some schools are bad, therefore reject schools altogether.

Public education is, above everything, necessary for the orator, who must move in the greatest publicity and in the full daylight of public affairs; he must accustom himself from his boyhood not to be abashed at the sight of man, nor to live in a solitary and recluse state of life. "The mind requires to be continually excited and roused, while in such retirement it either languishes and contracts rust, or, on the other hand, becomes swollen with empty conceit, since he who compares himself to no one else will necessarily attribute much to his own powers. Besides, when his acquirements are to be displayed in public, he is blinded at the sight of the sun, and stumbles at every new object, because he has learned in solitude that which is to be done in public. I say nothing of friend-

ships formed at school, which remain in full force even to old age, as if cemented by a certain religious obligation, for to have been instructed in the same studies is a not less sacred bond than to have been instructed in the same sacred rites. Where shall a young man learn the sense, too, which is called common sense, when he has separated himself from society? Besides, at home he can learn only what is taught himself; at school even what is taught others. He will every day hear many things commended, many things corrected; the idleness of a fellow-student when reproved will be a warning to him, the industry of one commended will be a stimulus, emulation will be excited by praise, and he will think it a disgrace to yield to his equals in age, and an honor to surpass his seniors. All these things excite the mind, and though ambition itself be a vice, yet it is often the parent of virtues." Quintilian adds that masters themselves, when they have but one pupil at a time with them, cannot feel the same energy and spirit in addressing him as when they are excited by a large number of hearers. There would be no eloquence in the world if we were to speak only with one person at a time.

The first duty of a teacher is to ascertain the disposition and ability of his pupil, and the chief signs of this ability are found to consist in memory and in imitation. In this we must be on our guard against that ready and superficial quickness which is often mistaken for power. Each pupil requires that special kind of stimulus which is best suited to his disposition. Work should alternate with play. Corporal punishment should in no case be allowed, and this for three reasons. 1. It is servile and degrading in its nature. 2. After a time even

this loses its effect. 3. If the master does his duty in exerting steady work, there will be no occasion for it. It is, indeed, the weapon of bad teachers, and no man should be allowed too much authority over an age so weak, and so unable to resist ill-treatment. Next comes the special duty of the *grammaticus*. This will be mainly to teach the art of speaking correctly, and the illustration of the poets. It will include the art of writing and the practice of the critical judgment. He should also teach music as far as it is concerned with metre and rhythm, astronomy to understand the allusions of the poets, and philosophy for the same reason. Although the schoolmaster is necessarily concerned with the foundations, unless these are well and securely laid, the edifice built upon them will be tottering and unsafe. We need not be afraid of employing the minds of children on too many topics—diversity of employment is in itself a relaxation, and no age is so well able as this to stand the strain of complexity of studies.

We now pass to the duties of the rhetorician. Boys are often sent to them at too late an age. The schoolmaster has trenched upon his functions. We can lay down no certain rule, but the pupil should—to use a modern phrase—leave school as soon as he is fit for the university. In choosing a teacher let us pay especial regard to his moral character. Let him be a parent to his pupils ; let him have an equable temper, neither too affable nor too austere. Let him deserve, by his constant and unconscious influence, the love and reverence of his pupils. Above all, choose a teacher of eminence from the very first—the ablest teachers can if they will teach little things best. Besides, in the classes of the best

teachers you will find the most desirable fellow-students for your son. The rhetorician will begin by going over again some of the work of the *grammaticus*. He will prefer exuberance to sterility. Nothing is worse than *a dry master;* it is very easy for the power of boys to sink under too great severity of correction. Nothing cheers study so much as hope. The master should give his own composition as a model to his pupils, and encourage them to imitate it. You must make allowance for each pupil's age and ability. "I used to say," Quintilian tells us, with regard to some compositions, "that I was satisfied with them for the present, but that a time would come when I should not allow them to produce compositions of such a character." It is quite true that a good teacher will suit the education of his pupils to their several capacities, just as a trainer in the palæstra will make one of his pupils a runner, another a boxer or wrestler. But this must not be carried too far. Sometimes this natural disposition is a fault which must be restrained, and must be met by contrary treatment. Still we must not fight against nature. We must not take away any inborn good quality, we must only strengthen what is weak and supply what is deficient. If such is the duty of teachers, what is that of the learners? They must love their tutors not less than their studies, and regard them as the parents, not indeed of their bodies, but of their minds.

It is no part of our plan to follow minutely the rest of Quintilian's work, which is devoted to the training of the lawyer and the statesman in the smallest details. But a short sketch of its scope and of what it aims to effect will give an idea of the elaborate pains with which the education of a Roman was conducted. The passages I have

quoted are to be found in the first of his twelve books, and in the first half of the second. The third book contains a full classification of the different kinds of oratory. In the fourth, after a preface, in which he expresses his gratitude for being selected as the teacher of the great-nephews of the Emperor Domitian, he treats of the different divisions of a speech, the purpose of the exordium, the proper form of a statement of facts, what constitutes the force of proofs, either in confirming our own assertions or refuting those of our adversary, and of the different powers of the peroration, whether it be regarded as a summary of the arguments previously used, or as a means of exciting the feelings of the judge rather than of refreshing his memory. This brings us to the end of the sixth book, which closes with remarks on the uses of humor and of altercation. The seventh book is extremely technical. It deals with what Quintilian calls arrangement—the second part of oratory, as invention is the first. It is really a treatise on the logic of argument. The eighth and ninth books are given to style. This subject is treated with an exhaustiveness which has no parallel in modern education, excepting perhaps in France, which, as we said before, is of all countries in Europe the most faithful guardian of Roman principles of education. In the tenth book, the most popular and best known of all, Quintilian, in giving advice for an orator's reading, takes occasion to pass in review the great Greek and Roman writers, and to criticise them in turn. Many of those whom he mentions are lost to us forever ; it is some consolation to think that the best, as a rule, still survive. The book concludes with miscellaneous remarks on imitation, on writing, on correcting what we have written, on

the different kinds of composition, and on the power of speaking extempore. The eleventh book treats first of what is becoming in an orator, and of the different kinds of oratory which suit different audiences; next of the memory and of the means of cultivating it; and, lastly, of delivery, the management of the voice, gesture, and countenance. The last book attempts to connect the somewhat limited and special subject of oratorical education with the general interests of humanity. A great orator must be a good man. For this he must study philosophy and its three great branches—dialectic or logic, ethics, and physics.

Lastly, the experienced teacher gives advice when the public life of an orator should begin, and when it should end. Even then his activity will not come to an end. He will write the history of his times, will explain the law to those who consult him, will write, like Quintilian himself, a treatise on eloquence, or set forth the highest principles of morality. The young men will throng round and consult him as an oracle, and he will guide them as a pilot. What can be more honorable to a man than to teach that of which he has a thorough knowledge? I know not," he concludes, "whether an orator ought not to be thought happiest at that period of his life when, sequestered from the world, devoted to retired study, unmolested by envy, and remote from strife, he has placed his reputation in a harbor of safety, experiencing while yet alive that respect which is more commonly offered after death, and observing how his character will be regarded by posterity."

CHAPTER III.

HUMANISTIC EDUCATION.

We have described the two principal educational systems of the Pagan world. Whatever effects the introduction of Christianity wrought, it was only to be expected that it should bring about a great change in the character of education. It recognized no difference between slave and free, it gave women an honorable position by the side of men, it considered the individual not as existing only for the benefit of the State, but laid stress on the personal relations between God and each of His creatures. It did not regard education as mainly of political importance, but estimated it by its bearing on the development of the spiritual life. It was natural that the Christian education should take at first an ecclesiastical character. The first pressing need was to provide ministrants of all grades for the service of the Church, and it was only as a favor that laymen were gradually allowed to partake of this instruction. But even in the age of the Fathers we find that the curriculum was not confined within these narrow limits. The Greeks were more liberal in their views than the Latins. The great Origen at Alexandria added philosophy, geometry, grammar, and rhetoric to the ecclesiastical course, and read with his pupils the Greek philosophers and poets. He used the method of dialectic, and taught his pupils by questions and answers, and encouraged them to pursue inquiry on their own account. But the crown and completion of the edifice lay

in the interpretation of Holy Scripture, and in the explanation of the subtlest truths of Christianity. This interpretation was no mere analysis of the dead letter, but an attempt to penetrate into the living spirit. On the other hand, the Latin fathers Tertullian, Cyprian, Jerome, and Augustine would have nothing to do with the heathen writings. A new education, they said, must be formed of a purely Christian character to supply Christian wants. To the age of the Fathers succeeded the age of the Schoolmen, and to the period in which they flourished the education of the Middle Ages in the main belongs. We cannot give one uniform account of it as a whole. The education of the monastery was strongly contrasted with that of the castle, and these were again distinct from the education of the towns. These three streams continued to run parallel to each other until their course was profoundly modified by the combined effects of the Renaissance and the Reformation. It was part of the design of Charles the Great to establish throughout his empire a system of lay and ecclesiastical schools, which should supply the place of that magnificent system of public schools which had grown up under the Roman empire. He spared no trouble in obtaining the best assistance ; the palace school was to be a model and an example to the rest. But he took education as he found it, and his work had no great influence on the development of educational theory. Very different was it with the monks. The great schools of Fulda, of Reichenau, of Corbey, of Hildesheim, of St. Gall, all monasteries of the Benedictine rule, were not only centres of enlightenment to the ages in which they flourished, but they presented to the world a model of Christian education which it has never entirely deserted.

"Not a man in Europe now," as Dr. Newman says, "who talks bravely against the Church, but owes it to the Church that he can talk at all." The Benedictines were, in education, the Jesuits of the Middle Ages, but they taught with more simplicity and faithfulness, and not with ulterior designs of power and influence. Their great monasteries were at once fortresses against crime, refuges for the oppressed, centres of instruction for the people, the free home of the sciences, archives of literature, schools for the young, universities for the learned, chanceries for kings, seminaries for priests, schools of agriculture, of manufacture, of music, architecture, and painting. Nor was the education of girls neglected. The nuns of St. Clare were as active in teaching as their brother monks.

The school was organized with great care, and the curriculum was not nearly as narrow as we might have expected. The highest dignitary was the *scholasticus*, or provost, called in Italian *magniscola*. He was highly paid and much honored, and exercised a general superintendence over the whole institution. Under him was the rector or head master, appointed and paid by the *scholasticus*. He might be a layman or be married. As the *scholasticus* withdrew more and more from teaching, the care of the higher education came gradually into the rector's hands. Another important officer was the *cantor*, or singing master, who had also charge of the elaborate church calendar. The immediate care of the pupils was committed both in and out of school to *circatores*, who answer to the French *maîtres d'études*, a class happily unknown in England. The subjects of education were the so-called seven liberal arts : Grammar, dialectic, rhetoric,

music, arithmetic, geometry, astronomy. The use of these was expressed in the following verses.

> *Gramm* loquitur, *Dia* vera docet, *Rhe* verba colorat,
> *Mus* canit, *Ar* numerat, *Geo* ponderat, *As* colit astra.

The three first formed the *trivium*, the four last the *quadrivium*—the whole making a course of seven years. The study of religion, although not expressly mentioned, was regarded as the object and the completion of the whole system.

Grammar, principally Latin, although Greek and Hebrew were also taught to some extent, was imparted out of the works of Priscian, Diomedes, and Donatus. It went as far as the explanation of some of the best known writers, and the learning of prosody, etymology, and correctness of expression. This was the germ from which the later humanistic education was developed. The scholars of the Reformation elaborated and perfected this first of the liberal studies, but there they stopped, and even in these days we hesitate to go beyond them. Charles the Great did his best to develop the study of his native German. Dialectic was in theory synonymous with logic, but in the schools of the Middle Ages it went little beyond a collection of barren terminologies, borrowed from Aristotle after passing through a number of incongruous media. When the application of philosophy to theology was perfected by the schoolmen, this branch encroached largely on the field of education, and so discredited that study that it found no place in the new learning. Rhetoric was taught out of Quintilian and Cicero ; sometimes from their original works, sometimes through the medium of Capella, Bede, or Alcuin. Music, as might be expect-

ed, occupied a large space. With it were connected other arts of taste—the beautiful writing of manuscripts, architecture, and illumination. Arithmetic was too much taken up with the secret properties of numbers ; Geometry was taught entirely out of Euclid, and was connected with elementary notions of geography. Astronomy, in some respects hardly distinguishable from astrology, was the only branch of natural science which received attention. Even here the connection of education with the Church was not forgotten. Twenty-four doggerel Latin verses taught the sequence of the festivals of the Church ; they were called Cisio-Janus from the two words with which they commence. These two lines have reference to January.

> Cisio-Janus, Epi sibi vindicat Oc Feli Mar An
> Prisca. Fab. Ag. Vincenti. Pau. Pol. Car. nobile lumen.

The days of the month are denoted by the order in which the syllables occur. Cisio is the circumcision of Christ. Epi, the sixth syllable, is the Epiphany on the 6th of January. Pau, the twenty-fifth syllable, is the conversion of St. Paul on the 25th of January.

The discipline in these schools was very harsh and rough, and the rod was the only means of persuasion. The flogging which still disgraces some of our public schools is an inheritance from the monks and friars. This harsh treatment brought with it its natural results : the pupils grew up unruly and ill-behaved. We hear of schoolboys murdering each other, and of a cloister being burned down in revenge for a flogging. In these religious schools grew up the practice of acting plays and mysteries by way of relaxation, which has continued in Catholic and

Protestant schools to our own day. We have before mentioned the name of Charles the Great. The wish of the emperor was to establish throughout his vast empire, which extended from the Eider to the Garigliano, from the Raab to the Ebro, a culture, national, that is German in tone, based upon the foundations of the Church. He desired the clergy first to be well educated themselves, and then to become centres of enlightenment to the surrounding laity. He himself set the example of industry and application to learning, and the cause of education suffered severely by his death. The tenth and eleventh centuries were times of greater ignorance and barbarism than the ninth. The two following centuries were occupied by the activity of the schoolmen. The human mind revolted from the fetters in which the clergy had attempted to confine it. A real interest in philosophy was awakened ; an attempt was made to reconcile the teaching of Aristotle with that of St. Paul, to harmonize reason and revelation. The principal effect which the schoolmen had on education was to determine the form in which instruction should be given. They had, at the same time, a considerable indirect influence in stimulating the intellect to speculation, in rousing a dissatisfaction with dogmas which were incapable of proof, and in preparing the way for the Reformation.

The age of the schoolmen was also the age of chivalry. Side by side with the education of the cloister and the cathedral was the education of the castle. Here the young knight learned a good deal that he learns at the present day in our public schools. The *trivium* and *quadrivium* were understood to be intended only for clerics and men of learning ; the knightly curriculum, the seven free arts, as

they were called, were to ride, to swim, to shoot with bow and arrow, to box, to hawk, to play chess, and to write poetry. In the cloister the body was mortified, in the castle it was exalted ; in the cloister the pupils might not so much as look at a woman's face, in the castle devotion to women was made the mainspring of conduct, the object and the reward of all higher effort ; in the cloister the poetry chiefly valued consisted of verses in monkish Latin, in the castle the young knight learned all the mysteries of Provençal verse, and could describe the perfection of his mistress in the ballad, or the canzone, or the sonnet, and accompany his poetry with the lute. In the three grades of this education, the pupil was successively page, squire, and knight, the first beginning with the seventh, the second with the fourteenth year. Careful rules were laid down for each period, and there can be little doubt that, under favorable circumstances, the education was very well suited to its purpose. The town schools as regards education were inferior to those we have mentioned, but they maintained a lay character in the midst of encroaching ecclesiasticism, they paid especial attention to the study of vernacular tongues, and they taught subjects such as history and geography better than they could be learned either in the cloister or the castle.

It would be impossible, in a review of the education of the Middle Ages, to pass over the Brethren of the Common Life who lived and taught in the northern Netherlands on the banks of the Yssel. In the latter half of the fourteenth century and during the whole of the fifteenth they inspired the lower classes of their countrymen with the same love of classical study and literary excellence which in Italy was confined only to a favored few. Ger-

hard Groote, their founder (1340–1384), studied the scholastic philosophy at Paris, but returned to establish at Deventer a community of ascetic life and brotherly striving after a divine ideal. He only lived long enough to see the commencement of his work. This community was given to all good works, but especially to the teaching of the young. The Bible was the foundation on which they built; but, besides this, they did not neglect the study of Ovid, Vergil, Horace, and Terence, of Plutarch, Sallust, Thucydides, and Herodotus. Nor were they entirely ignorant of Plato, Aristotle, and Cicero. From Deventer as a centre their schools spread first over Holland, then into Belgium, Germany, and France. The school at Herzogenbusch had 1200 scholars, that of Zwolle 1000. The spirit of this saintly brotherhood still speaks to us in the "Imitation of Christ," probably written by Thomas of Kempen, who breathed into his book the essence of their simplicity and self-denial. They improved the teaching of Latin both in method and correctness, and published an encyclopædia of geography and history containing everything which it was necessary for a student to know. During the fifteenth century they were indisputably at the head of education in the north of Europe. Their end is very pathetic. The spread of the art of printing took away their chief source of income, that of copying books; as they had supplanted the learning of the monks by a better teaching, so they were not able to stand against the reviving light of humanism. The "Epistolæ Obscurorum Virorum," the wittiest squib of the Middle Ages, which did much to secure the victory of the new learning, are written in the name of the brothers of Deventer. But before they perished their

had given to the world their most distinguished scholar, Desiderius Erasmus, who, living in an age of transition and sympathizing with that which was departing and with that which had not yet come, linked together, as no one else could have done, the new learning with the old. We stand now at the threshold of the Renaissance.

The study of the humanities, that is, of the Greek classics in the original, is best fixed by the date of the conquest of Constantinople by the Turks in 1453. The breaking up of the Greek empire scattered a number of Greek scholars over Europe, and made Greek literature familiar to all cultivated minds. This was the later and more important Renaissance. But there was an earlier Renaissance of the thirteenth century. Dante, penetrated as he is with the learning of the schoolmen, reverences Vergil as his leader and master. Petrarch, nearly his contemporary, devoted his best talents to the revival of the study of antiquity. The flush of this early dawn spread even to France and England. The first great Italian schoolmaster of the new type was Vittorino da Feltre, who taught at Mantua, at the court of the Gonzagas. He was a little, lean, sprightly man, who lived entirely among his scholars, and devoted himself to their service. He was lodged by his princely masters in a palace with galleries, halls, and porticoes, spacious courts, and springing fountains, the walls painted with frescoes of children at play. He laid great stress on moral education; his discipline was strict both for himself and others. He was the companion of his pupils in play as well as work. The main point of his instruction was language. His favorite authors were Vergil and Cicero, Homer and Demosthenes. His pupils were expected to know these authors before

they went on to any others. They were also trained in discussion, in mathematics, and in music. The best masters in each study were engaged by him. Four learned Greeks inspired a taste for their own language. Vittorino lived to a good old age, dying in 1477. His spiritual successor in Mantua was Castiglione, the author of the well-known book, "Il Cortigiano," which was intended by him to be a complete handbook of a courtier's education. These works had their effect in England. At this time the communication between Italy and England was easy and frequent. Inspired by these influences John Colet founded the school of St. Paul's in London, and Thomas More sketched the plan of a refined education in Utopia. These votaries of a more liberal culture had no idea of the wide effects which would result from this movement.

It eventually terminated in two directions—the reformation of religion, and the reformation of learning. Erasmus stands at the parting of the ways, and may be regarded as typical of the whole change. He has left us several formal treatises on the education of youth. Before the seventh year, letters (even Greek and Latin), are to be taught in play, as well as religion and reverence, and discipline is to be mild rather than severe. Next comes the important choice of a tutor. While your child is young keep him with you in your house; in large schools there is great danger of corruption. Afterward, it is well to educate five or six boys together, or, if your son goes to a public school, give him a private tutor. Words must come before things. Greek and Latin grammars are to be learned together. When the pupil is well grounded in language he can pay attention to the subject

matter, especially what is contained in Greek. The memory is to be carefully trained, first by great exactness in teaching, then by hanging tables of things to be remembered on the walls. The sense of authors is to be fully explained, without an idle parade of useless learning. Greek grammar is always to be a few steps ahead of Latin. Translations of Greek into Latin are to be practised. But we must not push this exact knowledge so far as to attempt to write like Cicero. Since the time of Cicero the circumstances of the world have changed. The true imitation of the ancients is not to follow the letter but the spirit of their works. Besides the sciences, children should learn an art—painting, sculpture, or architecture. Religious instruction is of the highest importance. Reverence is to be taught by observing the splendor of the heavens, the richness of the earth, the sparkling fountain, the murmuring stream, the boundless sea, the various kinds of animals, all created for the service of man. The education of girls is as important as that of boys. The foundations of either education must be laid in the house. The groundwork of all teaching lies in reverence and obedience to parents.

Thus we see that at the very time when the old Church was losing its hold over the minds of men, circumstances were occurring to give to the education which it afforded a narrow character of a peculiar kind. Meagre and unsatisfactory as was the instruction of the Church of the Middle Ages, it was at least encyclopædic in its aim and intention. It comprehended, or claimed to comprehend, the grammar of the humanists, the logic of the schoolmen, the rhetoric of the Romans, the music of the Greeks, the mathematics of Newton, and the science of Herbert Spen-

cer. Disgust with scholastic subtlety, and the newly realized charm of Plato and Cicero, beguiled it into a laborious imitation of the style and language of the ancients. The breach between the reformed and unreformed Church left the Protestants without any higher education. Luther and Melanchthon labored hard to supply this want, but one by necessity, and the other by the predilection of his nature, followed in the path already chosen for its children by the rival faith. We shall see how the curriculum of humanistic education was systematized by John Sturm, of Strasburg, into a form which has lasted as the pattern of secondary education down to our own generation. The classical education, which is the staple production of our public schools, is in a certain sense the accident of an accident. It happened that in the beginning of the sixteenth century the education of Catholic Europe was strongly humanistic ; it happened that the breach of the great schism gave the Reformers a strong inducement to imitate the culture of their Catholic rivals. But a great opportunity was lost. Had the realistic education of Ratich and Comenius been preached a little earlier, or had Protestant nations welcomed it with greater unanimity, the new religion might have framed for itself a new course of instruction, which, leading to far richer results than can be obtained by the study of language, would have advanced by a hundred years the intelligence of modern Europe.

Still the Reformation did much, for Luther, the founder of the new Church, looked to national education as the best bulwark and defence of the edifice he had reared. He was, perhaps, the first to conceive the idea of a really universal education. His address to the municipal au-

thorities of all the towns in Germany in 1524 is a manifesto to the German people similar to that by which Fichte in 1813 called upon his countrymen to seek in self-culture the truest foundations of national life and strength. He founded religion on the life of the family, and made his own family a model for others to imitate. The duty of the family was to educate first in religion, then in the refinements of worldly learning. But the teaching of Luther would not have commended itself to the cultivated spirits of the time if he had not possessed a coadjutor of a different type, who justly earned the title of *præceptor Germaniæ*, Philip Schwarzerde or Melanchthon. Both as a writer of school-books and as a practical teacher, he succeeded in giving form to the new learning. He threw himself into the study of Greek, and when almost a boy himself wrote a grammar for schoolboys. This was followed a year later by a Latin grammar. Conscious, perhaps, of the defects of mere linguistic training, he worked at other departments of the old curriculum. He wrote an elementary treatise on logic and dialectic, and another on rhetoric intended as an introduction to Cicero and Quintilian. He composed a treatise on physical science, "Initia doctrinæ physicæ," which was the earnest of a better treatment of this important subject. He also wrote on psychology and ethics. But the strength of his mind did not lie in this direction. He was following a more congenial task in writing explanatory editions of classics, like those which have in our own day received so wide a development. Greater than the influence of his writings was that of his personal teaching. By his lectures at the university of Wittenberg, delivered sometimes to an audience of two thousand stu-

dents of all nations, and by the school which he held in his own house, he exhibited a model of what such institutions were to become in later days. It requires an effort of mind for us to realize how serious a thing it was in embracing the reformed faith to break with the intellectual traditions of the Middle Ages. Let one example suffice. The writings of Thomas Aquinas are scarcely known to Protestants; yet if we were drawing up a muster roll of the intellectual giants of the world, he would have every claim to stand in the first rank.

It is mainly due to Melanchthon that Protestantism became acceptable to the intellect of the man of letters. But the man who gave a permanent form to the new education, which has lasted but little changed to the present day, is John Sturm, of Strasburg, who was rector of the gymnasium of that town for forty-five years, from 1538 to 1583. He died in the year 1589, at the age of eighty-three. He occupied a position of eminence in Protestant Europe. He was the friend of Charles V. of Germany and of Elizabeth of England. His fame reached to Hungary, Transylvania, and Poland. In 1578 his school contained several thousand students. It will be worth while to describe his system of instruction in some detail. He wished his pupils to come to school at the age of six or seven; the school course should occupy nine years. At sixteen the pupil should remove to the academy, where lectures should be substituted for regular lessons. His education was to be considered as complete at the age of twenty-one. Of the nine years spent at the gymnasium, seven were to be devoted to the mastery of pure idiomatic Latin, the next two to the acquisition of an elegant style, and in the five collegiate years the pupil

was to be fashioned into a consummate speaker. Thus the groundwork of the whole system is language. It is humanism in its purest form. To the ninth class was at a later period prefixed a tenth. We possess the detailed instructions which Sturm gave to the teachers of each of his classes, so that we can speak with certainty as to his method. In the tenth class was to be learned the alphabet, spelling, reading and writing, all the paradigms of the nouns and verbs in Latin, and the German catechism. The master of the ninth class was to add to this previous knowledge the anomalous and irregular forms. The scholars were also to learn a number of Latin words arranged in regular series, so that they might be supplied with a rich vocabulary. The work of the eighth class in its earlier months was to go over what they had previously learned and to extend the vocabulary, the pupils being encouraged to make lists of words for themselves. At the end of the year they began to read select letters of Cicero, and composed short written essays in style. They also learned the German catechism. The seventh class began syntax, and this was carefully applied to their previous acquisitions, the examples being mainly drawn from Cicero. The exercises in style were continued with the help of the black-board, and Cato was read as well as Cicero, and music was commenced. In the sixth class at the age of ten the boys began Greek, reading the fables of Æsop. To the harder letters of Cicero were now added the comedies of Terence and some selections of Latin poetry. The fifth class learned prosody and mythology, Cicero's Cato and Lælius, and the eclogues of Vergil were read. The lessons in style were continued, and at the end of the year they were initiated into the art of

making nonsense Latin verses. The fourth class read the eighth oration against Verres, the epistles and satires of Horace, and one of the easier epistles of St. Paul in Greek. The third class added to this the graces of rhetoric, tropes, and figures, all illustrated by examples. In Greek they read Demosthenes and began Homer. The exercises in style were continued and carried to a higher level, and the comedies of Terence and Plautus were acted. The chief subject of teaching in the second class was logic and its sister rhetoric, both of which were applied to the orations of Demosthenes and Cicero. Finally, the first class was to carry logic and rhetoric to a higher point, and the students were now considered to be ready for the university.

No one who is acquainted with the education given at our principal classical schools, Eton, Winchester, and Westminster, forty years ago, can fail to see that their curriculum was framed to a great degree on Sturm's model. During our own generation the subjects of school teaching have been largely multiplied, and we can afford to look down on the humanistic scheme as narrow and incomplete ; but it had at least this merit, that it was a well-considered plan, harmonious in its arrangement, with its parts well fitting into one another. The master of each class knew precisely what the boys confided to him were expected to learn. When they proceeded to the university the preliminary instruction which they took with them had been well defined. This, at least in our English schools, is not the case now. No schemes of education which are not carefully framed and exactly determined in their general outline, if not in their details, can be carried out without a serious waste of time.

CHAPTER IV.

THE REALISTS—RATICH AND COMENIUS.

It will have been seen that the ideal of the humanistic education was the study of words. When Sturm's pupil had passed through his nine or ten years of school and was transferred to the university, he was still to be perfected in style, and to be made a consummate writer and speaker. There were two disadvantages in this conception of education. First, that words were taught instead of things; and second, that language was taught not as a living organic whole, fitted and complete for the service of life, but as a collection of dried specimens tabulated and arranged by the ingenuity of grammarians. Indeed, the nomenclature of grammar, parts of speech, terms of prosody and syntax, elaborate names for figures of expression, were thought of greater importance than the life and vigor of the poet or the orator. We should expect that these faults would have been discovered, and a stimulus was undoubtedly given to their correction by the dawn of that illumination of intellect which in the history of the human mind is usually connected with the name of Bacon. Certainly, more than any man of his time, Bacon seems to have realized that he was standing at the vestibule of a new age, and was charged with the mission of showing the insufficiency of the past and the bright hopes of the future. The secret which he discovered was to substitute in inquiry the method of induction for the method of deduction. Instead of setting out with a preconceived

principle or an inherited formula, and deducing all knowledge from it, men were encouraged to interpret nature, and to learn her secrets by careful inquiry and experience. The lock was to be opened, that was the problem. Other philosophers had tried key after key, each more complicated than the other.[1] Bacon said, take the lock to pieces and examine its mechanism, and you will then be able to make a key which will open it. But the mind must approach the problem without prejudice ; the idols, as he calls them, of the race, of the den, of the market-place, and of the theatre, must be got rid of. In other words, we must clear our minds of the prepossessions which we have as human beings, of those which are peculiar to our individual nature, of those which arise from the ordinary language of mankind, and of those which are caused by the tyranny of philosophical systems. For men whose minds were thus prepared for speculation, Bacon organized a new method of interrogating nature ; he formed a conspectus of the sciences, showing exactly what point of advance each of them had reached in his own day, and in this he showed his enlightenment by ranging pedagogics, or the science of education, as a department of psychology.

It was only natural that the new method should give a great impulse to the science of education. Hitherto in that, if in any, mere empiricism had been followed, and in that, if in any, it was reasonable to follow the guidance of nature. The man who felt himself called to reorganize education on this new basis, to train a new generation of the human race fit for more difficult enterprises and more

[1] Ich stand am Thor, ihr solltet Schlüssel seyn
Zwar euer Bart ist kraus, doch hebt ihr nicht die Riegel.
Faust.

extended conquests, was John Amos Comenius. But his name is generally connected with that of a distinguished forerunner whose speculations had a large effect in stimulating his own, and who, if he confined his actual reforms to a narrower sphere, showed that he had to some degree realized the possibility of the improvement which his successor was to carry out. Wolfgang Ratke, sometimes called Ratichius according as we follow the high or low German form of his name, was born at Wilster, in Holstein, in 1571. His early studies were devoted to Hebrew, Arabic, and mathematics, and in the course of these he developed a new method of teaching which he offered to the German Diet at Frankfort, May 7th, 1612, as a scheme fraught with momentous consequences to the improvement of the human race. A year later he had an opportunity given him of trying his system in the capital of the principality of Anhalt-Köthen, but his life, like that of most educational reformers, was full of failure and disappointment. His best chance of useful employment lay with Oxenstiern, Chancellor of Sweden, one of the most enlightened men of his age, who spared no effort to increase that little wisdom with which he knew human affairs to be usually conducted. Oxenstiern asked for an interview, but Ratich sent him a quarto instead. When he had mastered it he found that the author had displayed admirably the faults of existing schools, but had not prepared any sufficient remedy for their improvement. Ratich died in 1635, at the age of 64.

His reforms when examined do not amount to much more than a better method of teaching languages. The pupil is first to learn his mother tongue. This is a great step in advance. German occupied the first three classes

in the school at Köthen. In the fourth class the pupil proceeded to Latin, and for the teaching of this Terence was chosen as a model book, to occupy the same position as Télémaque did in the scheme of Jacotot. Ratich describes his peculiar method at great length. In default of German translations of Terence, the teacher is first to give an account of the substance of the whole play and of each act in German, and is then to translate the author twice through literally, word for word, the boys sitting and listening attentively. This is to occupy a few weeks.

Then the boys are to begin to translate, being always helped by the teacher, and when they have gone through the author a third time, they are then at last to take the grammar into their hands. In the fourth repetition of Terence the boys are to have their grammar before them, and carefully to compare every rule with the examples as they occur. In other repetitions the analysis of the author is to be carried out with still greater completeness, and to be continued until it is thoroughly known. Not until an intimate familiarity with the style of Terence has been attained is composition to be attempted, and then in short oral sentences, framed first by the teacher and then by the pupils.

It will be seen that this method is the exact opposite of that pursued by Sturm. There the formal part of grammar, divided elaborately into portions for each year, was made the staple, and the reading of the author considered as subordinate. With Ratich, the very first thing was to state clearly the general drift of the author's meaning, and the grammar was abstracted by the efforts of each individual pupil. This method of proceeding in learning languages from the concrete to the abstract has found many

advocates since the time of Ratich, the most distinguished of whom are Jacotot and Hamilton. It is in all probability the best and readiest way of learning, but it requires two conditions which are not always at hand—ability in the teacher, and diligence in the pupil.

Besides this method, of which we have a complete account, Ratich has left a number of aphorisms on teaching which have a wider scope. These are : (1) In all teaching follow the order and course of nature, for all learning which is enforced and contrary to nature is harmful, and weakens nature. (2) Teach only one thing at a time, for nothing hinders the understanding so much as the attempt to learn many things at the same time ; therefore, first finish one thing well and then go on to another. You can learn any language out of a single author. This precept is the same as the *tout est dans tout* of Jacotot. (3) Often repeat the same thing ; what is often repeated sinks deeply into the understanding, but by learning many things in a confused way the understanding is confused and shaken. (4) Learn everything first in the mother tongue. This has the advantage that the pupil has then only to think of the thing he has to learn, and not of the medium in which he learns it. From the mother tongue proceed to other languages. (5) Learn everything without compulsion. By blows and compulsion studies become hateful to young students. It is also against nature. Boys are beaten because they do not remember what you have taught them, but if you had taught them properly they would have remembered it. Now they have to suffer for your negligence. To carry this out farther, Ratich proposed to divide the duties of teaching and punishment. The teacher must do nothing

in the school at Köthen. In the fourth class the pupil proceeded to Latin, and for the teaching of this Terence was chosen as a model book, to occupy the same position as Télémaque did in the scheme of Jacotot. Ratich describes his peculiar method at great length. In default of German translations of Terence, the teacher is first to give an account of the substance of the whole play and of each act in German, and is then to translate the author twice through literally, word for word, the boys sitting and listening attentively. This is to occupy a few weeks.

Then the boys are to begin to translate, being always helped by the teacher, and when they have gone through the author a third time, they are then at last to take the grammar into their hands. In the fourth repetition of Terence the boys are to have their grammar before them, and carefully to compare every rule with the examples as they occur. In other repetitions the analysis of the author is to be carried out with still greater completeness, and to be continued until it is thoroughly known. Not until an intimate familiarity with the style of Terence has been attained is composition to be attempted, and then in short oral sentences, framed first by the teacher and then by the pupils.

It will be seen that this method is the exact opposite of that pursued by Sturm. There the formal part of grammar, divided elaborately into portions for each year, was made the staple, and the reading of the author considered as subordinate. With Ratich, the very first thing was to state clearly the general drift of the author's meaning, and the grammar was abstracted by the efforts of each individual pupil. This method of proceeding in learning languages from the concrete to the abstract has found many

advocates since the time of Ratich, the most distinguished of whom are Jacotot and Hamilton. It is in all probability the best and readiest way of learning, but it requires two conditions which are not always at hand—ability in the teacher, and diligence in the pupil.

Besides this method, of which we have a complete account, Ratich has left a number of aphorisms on teaching which have a wider scope. These are : (1) In all teaching follow the order and course of nature, for all learning which is enforced and contrary to nature is harmful, and weakens nature. (2) Teach only one thing at a time, for nothing hinders the understanding so much as the attempt to learn many things at the same time ; therefore, first finish one thing well and then go on to another. You can learn any language out of a single author. This precept is the same as the *tout est dans tout* of Jacotot. (3) Often repeat the same thing ; what is often repeated sinks deeply into the understanding, but by learning many things in a confused way the understanding is confused and shaken. (4) Learn everything first in the mother tongue. This has the advantage that the pupil has then only to think of the thing he has to learn, and not of the medium in which he learns it. From the mother tongue proceed to other languages. (5) Learn everything without compulsion. By blows and compulsion studies become hateful to young students. It is also against nature. Boys are beaten because they do not remember what you have taught them, but if you had taught them properly they would have remembered it. Now they have to suffer for your negligence. To carry this out farther, Ratich proposed to divide the duties of teaching and punishment. The teacher must do nothing

but teach, discipline belongs to the *scholarch*. The pupil must conceive no dislike for the teacher, but love him more and more. (6) Learn nothing by heart; if a man depends much on learning by heart he loses understanding and acuteness. If the mind has grasped anything by frequent repetition it is naturally remembered without difficulty. Lessons must not be given for two consecutive hours. The pupil must listen to the teacher in silence, he must say nothing, and ask no questions during the lessons so as not to interrupt the others. All questions must be asked after the lesson. (7) Have uniformity in everything, both in the methods of teaching as well as in books and precepts. Let the grammars correspond with each other as far as may be, whether they be in German, Hebrew, or Greek. (8) First teach the thing itself, then the manner of the thing. Give no rules until you have given the matter, the author, and the language. Rules without matter confuse the understanding. (9) Teach everything by experience and inquiry, piece by piece. Authority is of no value by itself unless ground and reason be there also. No rule or notion will be implanted in the mind unless it has been verified and found correct by proof.

John Amos Comenius or Komenski was a reformer of a more vigorous type. He was born at Nivnitz, in Moravia, in 1592. When he was twenty-six years old the Thirty Years' War broke out, and unfortunately the whole of his manhood was coincident with that disastrous period. In 1616 he published a short Latin Grammar, to introduce a better method of learning the language. In 1627 he produced a short methododogy, or course of study, and at Lissa, in Silesia, in the year 1631, he wrote

his first great book, the "Janua Linguarum Reserata," the door of languages unlocked. It consists of a number of dialogues and remarks on familiar subjects, with translations on the opposite page, and simple illustrations. It soon made the tour of Europe, and was translated into twelve languages. Seven years later he was invited to Sweden, but he refused the invitation and devoted himself to composing his greatest work, the "Didactica Magna," a complete handbook of education in all its branches, and the first attempt to write a systematic treatise on the whole subject. An extract from the preface to this work made its way to England, and had, as we shall afterward see, an important effect on Milton. In the autumn of 1641 Comenius was summoned to England by order of the Parliament. The king being in Scotland and the Parliament prorogued for three months, he spent the winter in London. He tells us that the Parliament intended to appoint a committee to inquire into the question, and that they had some idea of assigning to him some college with its revenues, whereby a certain number of learned and industrious men might be honorably maintained, either for a term of years or in perpetuity. "There was even named for the purpose the Savoy in London; Winchester College, also, out of London, was named; and again, nearer the city, Chelsea College, inventories of which and of its revenues were communicated to us, so that nothing seemed more certain than that the design of the great Verulam concerning the opening somewhere of an universal college of all nations devoted to the advancement of the sciences would be carried out. But a rumor that Ireland was in a state of commotion, and that more than 200,000 of the English there had been slaugh-

tered in one night, the sudden departure of the king from London, and the clear indications that a most cruel war was on the point of breaking out, threw all these plans into confusion, and compelled me and my friends to hasten our return." Returning to Germany he remodelled his "Janua Linguarum," and published it in 1648, the year of the Peace of Westphalia. In 1650 Comenius was summoned to Hungary by Prince Rakoczi. He remained with him four years, and devoted himself to remodelling the school system on his estates. He devised a system of school work, dividing the school into seven classes, each class to occupy a year, from the age of ten to that of seventeen. In the first three years his own books, the "Vestibulum," the "Janua," and the "Atrium," were to be read. The next four classes were to study, respectively, *philosophica*, *logica*, *politica*, and *theologica*, or *theosophica*. The first three classes were to learn common objects, and Latin, writing, arithmetic, geometry and music, games and gymnastics; the fourth class was to learn Greek and Church music, and to begin dramatic representations; the fifth class logic and metaphysics, and so on. His complete works on education under the title of "Opera Didactica" were published in 1657. He died on November 15th, 1671. It is an evidence of the neglect with which educational speculation has been treated, that the best works of this powerful and systematic thinker have been so little read. Let us attempt to ascertain from his own great treatise on education what his principles of education were.[1]

The end of man, Comenius says, is to attain eternal

[1] In what follows I have attempted, with the help of Vogel, a short abstract of the "Didactica Magna."

happiness in and with God. This life is only a preparation for eternity. The life of man is threefold—vegetative, animal, and intellectual. The last alone is real. Man has by nature the impulse to improve the qualities with which he is endowed, so that he may grow in virtue and piety. But this end can only be attained by education. It is the duty and the object of the school to help a man to compass this, for men are moulded more easily in their youth. Education in the school should be common to all, and the same for both sexes. The three graces of the soul are perception, will, and memory, or conscience. All men are naturally anxious to use their perception, to obtain harmony of their moral nature, and the love of God. For the groundwork of all men's nature is the same ; the difference of individuals consists only in excess or defect of qualities which spoil the harmony of nature, and the problem of education is how to get rid of this evil. If this theory be true, man can only become man by education. The true method of education is to follow nature, and, as every man's nature develops itself by virtue of an implanted tendency, you have only to assist these tendencies and to remove hindrances out of their path. Upon these general principles Comenius founds a system of short, easy, and speedy learning. He goes into every detail in turn, and completes his inquiry with a full description of the organization of his school. In describing his method he attempts to deduce everything from the teaching of nature. In this he often follows a false analogy, and this defect has probably stood in the way of the ready acceptance of his theories. He says that you should follow this and that precept, because this is what the bird does, and because the tree grows in such and such

a manner. He thus seems to imagine that the analogy of organic nature can always be applied to the inner growth of the soul. This, however, does not deprive his principle of practical value. Further, there is a ring of false magniloquence in the promises with which he sets out. There is a discrepancy between the scheme of an instauration of universal learning and the publication of a picture-book like the "Orbis Pictus." Moreover his psychology is defective, as could only be expected in that age. But these faults do not deprive his system of its intrinsic value.

To continue our analysis. A man is destined by his nature to be three things: (1) a reasonable being; (2) a being bearing rule over others; (3) a being who is the pattern of his Creator. (1) As a reasonable being man must know what the world contains; the power of the elements, the change of the seasons, the stars, the nature of animals, the thoughts of men, plants, all that is open and all that is concealed, the knowledge of the artificer, the art of the speaker. (2) In his second capacity man must know to assign each thing to its proper end, so as to be able to turn it to his advantage; to move royally among all creatures, to submit to no created thing, not even to his own body; to turn everything to his service, to be able to command all movements and actions, external and internal, his own and those of others with prudence. (3) As the pattern of God, man must represent in his life the completeness of the divine type. In short he must know all things, command all things, including himself, refer everything, including himself, to God, as the source of all things.

This result is to be brought about in three ways: (1) by education and instruction; (2) by virtue and morality;

(3) by religion and piety. Education or instruction includes the knowledge of all arts and languages ; morality includes not only external demeanor but external and internal harmony of emotion ; religion includes reverence. These things make up the whole man. Everything else, health, strength, beauty, riches, goodness, friendship, prosperity, and long life, are nothing but the graces of life. Now all these things, if taught at all, must be taught in early youth, and children must be taught together in common schools. The duty of school is : (1) to instruct in sciences and arts ; (2) to refine the methods of expression ; (3) to educate with a view to morality ; (4) to secure the reverence of God in the heart. Schools have been fitly called the workshops of humanity, and they deserve this name if they make men (1) wise in spirit, (2) clever in action, (3) pious in heart. The duty of schools may be divided into two large sections ; we learn in them (1) the things which surround us, (2) ourselves. Now it is obvious that the schools at present existing are not sufficient to fulfil this object ; it is, however, possible to draw up a system which will educate the entire body of youth that is capable of receiving education, will educate them in all things which make men wise, and just, and pious, and will complete this education before the years of maturity, without compulsion, blows, or severity, in a real and not a superficial manner, and perform this task in a way which will not be difficult, but easy.

The great principle on which we are to depend as our foundation is, that a man's nature will infallibly move in that direction in which nature impels it, and this even with pleasure, feeling pain if it be held back. All that is

required in education is impulse and direction, and to remove the hindrances which God has suffered to exist for the stimulating of our zeal. Now the means by which this education can be accomplished is as follows : (1) by the lengthening of life ; (2) by the shortening of methods ; (3) by the seizing of opportunities ; (4) by enlarging the powers of perception ; (5) by laying a sure and immovable foundation. In this way we shall be able : (1) to learn more ; (2) to learn more quickly ; (3) to learn more surely ; (4) to learn more thoroughly. Length of life may be obtained either by prolonging life itself, or by doing a great deal in a short life. It has been held that life might easily be prolonged to 120 years. Certainly few people make the best use of their lives. The school can help in both these matters. It can pay careful regard to the rules of health, create a sound mind in a sound body, and it can train men to make the most of their lives. We must observe here that Comenius does not make health the only or the principal object of life, but health coupled with a useful and active existence.

What are the principal rules of learning ? (1) Education must begin in the springtime of life ; (2) the morning hours are the best for study ; (3) all subjects of study must be carefully proportioned to the age and capacity of the learner. Then we must have all the appliances of study close at hand—books, models, and tables. In school books we must take care that the matter precedes the form ; that is, that the concrete comes before the abstract. So we must learn things before words, and words before grammar. We must learn the details of an art or science before its principles, we must learn examples before rules. Again, attendance at the school

must be constant, as interruptions hinder learning, and we must take care not to teach our pupil what he is not fit to learn. We must not teach too many things at a time in hopeless confusion. This would be like a baker who is always opening his oven to put in new loaves, or a shoemaker who tried to make five pairs of shoes at once. We must not overburden the memory. Understanding comes first, then memory, then speech. In teaching it is best first to give a general sketch of the whole subject, then to give rules and examples, then the exceptions to the rules, and lastly, detailed explanations. In teaching we must not proceed by leaps, but must divide our studies into classified grades, so that the earlier may prepare the way for the later. We must so arrange matters that every year, every month, every day, every hour, has its appointed task. The school must be in a quiet place, free from noise and disturbance, and non-attendance must be strictly discouraged. We must guard children against books and companions likely to do them harm. Such are the rules for learning surely.

Now to learn easily we must observe the following. Education must begin betimes, not distracted with a variety of teachers, and moral education must take precedence of the rest. Children must not be forced to study against their will, but we must do our best to arouse an enthusiasm for learning in our pupils, and our methods must be such as to make learning as easy as possible. For this purpose the teacher must be cheerful and kind, the school must be airy and attractive, adorned with pictures and furnished with a garden, and the manner of teaching must be as far as possible natural. Emulation must be stimulated by public declamations, promotions,

and prizes. The principles of an art must be expressed in short and clear rules, and each rule must consist of short and clear words, and be furnished with several examples. The transition must be from the easier to the harder. How absurd it is to give the rules of Latin grammar in Latin, or to teach by means of a foreign master! Teacher and learner should speak the same language, and all explanations should be given in the mother tongue.

First comes understanding, then writing, then speech. Examples must be drawn from common objects. With children we must educate first their perception, then their memory, then their insight, and, lastly, their judgment. Again, the school hours must not be too long—four at the outside, and as much again for private study. Nothing must be learned by heart which is not previously understood. Corporal punishment must not be used. If a child cannot learn, whose fault is it, his or the teacher's? All explanations must be as clear as daylight. The eye should help the ear, the hand the speech, so it is well to employ models, pictures, and black-boards. If possible, let children see the use of what they are learning. It is best to have one method for all subjects of study, and that all the books should be in the same editions. The same methods will make knowledge real and sterling. Also for this purpose children must be taught as far as possible, not from books, but from heaven and earth, oaks and beeches. The studies of the whole life must be so arranged as to form an encyclopædia of knowledge. We must learn in such a way as to be able to communicate what we know. Ask much, retain what you are told, teach what you have retained. *Multa roga, retine docta, retenta doce.* A man who teaches another teaches himself.

To learn shortly and quickly you must pursue the following methods. Have one teacher for each class ; a teacher with improved methods can teach a large number. For this purpose Comenius recommends methods many of which have become familiar to us. (1) Dividing the class into bodies of ten, each with a prefect. (2) Teaching nothing that is not heard and understood by all. (3) A previous explanation of the general subject of the teaching. (4) The teacher to be so placed that he can command the whole class. (5) Passing a question down the form from one to the other. (6) Allowing the children to ask any questions when school is over. (7) If no one answers a question to ask the whole class, and to praise the one who answers right. It is well to have uniform school books arranged in question and answer, with extracts on the walls. Comenius laid such stress on the importance of a carefully-arranged programme that in Hungary he only received scholars once a year. Primers expressed in short, simple language are useful. Combine the teaching of things with that of words, matter with style, learning with play. Avoid teaching what is useless, or matters of too special a character.

Comenius goes on to describe at length the methods of teaching the sciences and the arts, languages, morals and piety. But it will be better to pass at once to a sketch of the arrangements of the reformed school. He contemplates when his system is complete the entire banishment of heathen writers from his curriculum. For discipline he adduces the example of the sun, which gives us light and warmth always, rain and wind often, thunder and lightning seldom. Comenius establishes four classes of schools : (1) the mother's school in every house ; (2) the

national school in every parish ; (3) the gymnasium in every large town ; (4) the university in every country or large province. In the lower grade of schools things are to be taught generally and in outline, and in the higher schools more in detail and more completely. The mother's school is to cultivate the external senses ; the national school, the internal senses, imagination and memory, hand and tongue ; the gymnasium, understanding and judgment ; the university, the will. All children of both sexes are to attend the two first schools ; the gymnasium is for those who are not destined for manual employment ; the university is to train the future teachers and leaders of the community.

The mother's school is to teach the first beginnings of many things, things quite simple in themselves which we are accustomed to call by very hard names. A child in its earliest infancy will learn the simplest notions of metaphysics in the ideas, something, nothing, it is, it is not, where, when, like, and unlike ; of physics, in the knowledge of water, earth, air, fire, rain, snow, ice, stones, iron, tree, plant, etc. ; of optics, in the knowledge of light, darkness, shadow, color, etc. ; of astronomy, in the knowledge of heaven, sun, moon, stars, and their daily motions. In the same manner he will learn a little geography, chronology, history, arithmetic, geometry, statics, mechanics, dialectics, grammar, rhetoric, the art of poetry, domestic economy, a very little politics, and ethics. Moreover the child in these first six years will learn moderation, cleanliness, veneration, obedience, truthfulness, justice, love, with silence, patience, serviceableness, propriety, and religion. Comenius proposes to write a book for mothers, and a picture book for the instruction

of children. The national school is to be a school of the mother tongue. It is absurd to learn a foreign language before you know your own. This school will teach reading, writing, arithmetic, measuring, singing, the Bible, history, and physical geography, and, lastly, the principal handicrafts. The course will be spread over six years, and be taught in six classes. Books are to be written for each class, the earlier containing the general principles, the later the particulars. These books are to be called by fancy names : the violet bed, the rose hedge, the grass plot. The school hours are to be four only, two before and two after the midday meal ; the morning hours are to be devoted to the understanding and memory, the afternoon to the practice of the hand and voice. Nothing new is to be taught in the afternoon. The Latin school, the next stage, is to consist of six classes, and to occupy the years from twelve to eighteen. The classes are arranged in the following order : (1) grammar ; (2) physics ; (3) mathematics ; (4) ethics ; (5) dialectics ; (6) rhetoric. The sciences themselves are to be taught in the morning, the history of them in the afternoon. The crown of the whole system is the university, in which all sciences are to be taught.

How striking and how powerful is the reform of education here proposed ! How much more so must it have been in the age of Comenius ! Many of his suggestions have become commonplaces to ourselves, but many of them as we read them pour a new light upon our minds, and seem to us the expression of an idea which has long been darkly sensible. The more we reflect on the method of Comenius, the more shall we see that it is replete with suggestiveness, and we shall feel surprised that so much

wisdom can have lain in the path of schoolmasters for two hundred and fifty years, and that they have never stooped to avail themselves of its treasures.

CHAPTER V.

THE NATURALISTS—RABELAIS AND MONTAIGNE.

THE kinds of education described in the two last chapters are educations of system. Their object is to make the scholar and the man of learning, although in one case the basis is clerical, in the other modern. Each of these methods would be severely criticised by the man of the world ; whether a child were educated by the humanists or the realists it would appear to men of action that the schools had too much the best of it. The result in either case would rather be to form the student than the man fitted to take his part in the battle of life. We should, therefore, expect to find, side by side with these two directions of thought about education, a third, the object of which was to form the whole man, and which, although it did not neglect either letters or sciences, was inclined to believe that these might be learned without a parade of pedantic learning, and without interfering with the free growth of the man's nature. This school of educationalists may conveniently be called by the name of naturalists, not only because they professed to follow nature as much as Comenius, but because they set before themselves as the chief good the development of the entire nature, and not merely the intellect or any part of it. The principal

representatives of this school are Rabelais and Montaigne. The second of these is more entirely a naturalist than the first, but they are closely connected together, and although Rabelais loads his scheme of ideal education with useless learning, yet it is easy to see that his fundamental principle is the formation of the character and the training of a versatile and accomplished gentleman.

The attitude of Rabelais toward the education of his time is shown by his description of the evil training of his hero Gargantua before it was reformed under his direction. He says[1] (Book I. chap. xi.), "Gargantua from three years upward until five was brought up and instructed in all convenient discipline by the commandment of his father, and spent that time like the other little children of the country, that is, in drinking, eating, and sleeping, in eating, sleeping, and drinking, and in sleeping, drinking, and eating. About the end of his fifth year Grandgousier, his father, became convinced from a conversation with him that his understanding did partake of some divinity, and that if he were well taught and had a fitting education he would attain to a supreme degree of wisdom, 'therefore I will commit him to some learned man to have him indoctrinated according to his capacity, and will spare no cost.' Presently they appointed him a great sophister-doctor, called Master Tubal Holofernes, who taught him his A B C so well, that he could say it by heart backward, and about this he was five years and three months. Then read he to him Donatus (a grammar), Facetus, Theodoletus, and Alanus, 'De Parabolis' (who were moral writ-

[1] Rabelais is so little suited for the reading of ordinary students that I have thought it best to quote nearly all he says about education.

ers) ; about this he was thirteen years six months and two weeks. But you must remark that in the mean time he did learn to write in Gothic characters, and that he wrote all his books—for the art of printing was not then in use —and did ordinarily carry a great pen and inkhorn weighing about seven thousand quintals, etc. After that he read unto him the book called ' De Modis Significandi,' with the commentaries of Hurtbise, of Fasquin, of Tropdieux, of Gaulhault, of Jehan le Veau, Billonio, Berlinguandus, and others, wherein he spent more than eighteen years and eleven months, and was so well versed in it that to try masteries in school disputes with his con-disciples he would recite it by heart backward, and did sometimes preve on his finger ends to his mother, ' quod de modis significandi non erat scientia.' Then did he read to him the compost for knowing the age of the moon, the seasons of the year, and the tides of the sea, on which he spent sixteen years and two months, and just at this time his preceptor died, in the year 1420. Afterward he got an old coughing fellow to teach him, named Master Jobelin Bridé, who read unto him Hugutio Hebrard's Græcism, the Doctrinale (a Latin grammar), the Partes, the Quid est, the Supplementum, Marmotret (an introduction to the Bible), ' De moribus in mensa servandis,' Seneca, ' De quatuor vitutibus cardinalibus,' Passavantus cum commento, a Dormi secure for the feast-days, and some other of such like mealy stuff, by reading whereof he became as wise as any we ever since baked in an oven.

" At last his father perceived that indeed he studied hard, and that although he spent all his time in it he did nevertheless profit nothing, but, what is worse, grew thereby foolish, simple, doted, and blockish, whereof making a

heavy regret to Don Philip of Marays, Viceroy or Depute King of Papaligosse, he found that it were better for him to learn nothing at all, than to be taught such like books under such schoolmasters, because their knowledge was nothing but brutishness, and their wisdom but blunt, foppish toys, seeming only to bastardize good and noble spirits, and to corrupt all the flower of youth. 'That it is so, take,' said he, 'any young boy of this time who hath only studied two years, if he have not a better judgment, a better discourse, and that expressed in better terms than your son, with a completer courage and civility to all manner of persons, account me forever hereafter a very clounch.' This pleased Grandgousier very well, and he commanded that it should be done. At night, at supper, the said Des Marays brought in a young page of his called Eudemon, so neat, so trim, so handsome in his apparel, so spruce, with his hair in so good order and so sweet and comely in his behavior, that he had the resemblance of a little angel more than of a human creature. Then he said to Grandgousier, 'Do you see this young boy? He is not as yet full twelve years old. Let us try, if it please you, what difference there is between the knowledge of the doting mateologians of old time and the young lads that are now.' The trial pleased Grandgousier, and he commanded the page to begin. Then Eudemon, asking leave of the Viceroy, his master, so to do, with his cap in his hand, a clear and open countenance, beautiful and ruddy lips, his eyes steady, and his looks fixed on Gargantua, with a youthful modesty, standing up straight on his feet, began very gracefully to commend him, first for his virtue and good manners, secondly for his knowledge, thirdly for his nobility, fourthly for his

bodily accomplishments, and, in the fifth place, most sweetly exhorted him to reverence his father with all due observancy, who was so careful to have him well brought up. All this was by him delivered with such proper gestures, such distinct pronunciation, so pleasant a delivery, in such exquisite fine terms and so good Latin, that he seemed either a Gracchus, a Cicero, an Æmilius, of the time past than a youth of this age. But all the countenance that Gargantua kept was that he fell to crying like a cow, and cast down his face, hiding it with his cap, nor could they possibly draw one word from him, whereat his father was so grievously vexed that he would have killed Master Jobelin, but the said Des Marays withheld him from it by fair persuasions, so that length he pacified his wrath." So Jobelin was paid his wages and sent about his business, and Grandgousier, having consulted with the Viceroy, determined to choose for Gargantua, Ponocrates, the tutor of Eudemon, and so they set out for Paris together.

"When they first arrived at Paris, Ponocrates allowed him to go on his own way in order that he might see how he had been brought up by his previous instructor. He found that he awoke between eight and nine o'clock, spent a long time tumbling and tossing in bed, washed and dressed himself untidily, eat a large breakfast immediately afterward, went to church, studied a paltry half-hour, eat again to excess, and then played with cards and dice, checkers and chessboards. After this he drank, went to sleep, and drank again, then he studied a little and played. Shortly after followed supper, then more games and then bed, where he slept soundly till eight in the morning." When Ponocrates knew Gargantua's

vicious manner of living, he resolved to bring him up in another kind, but for a while he bore with him, considering that nature cannot endure such a change without great violence ; so he began by purging him with Anticyrian hellebore, by which medicine he cleansed all the alteration and perverse habitude of his brain. By this means also Ponocrates made him forget all that he had learned under his ancient preceptors. He then began a new method of study, so that he lost not any one hour in the day, but employed all his time in learning and honest knowledge.

" Gargantua awaked about four o'clock in the morning. While they were rubbing of him there was read unto him some chapters of the Holy Scripture, aloud and clearly, with a pronunciation fit for the matter. His prayers had reference to the purpose and argument of that lesson. His master repeated to him what had been read, expounding the most obscure and difficult points. Then they considered the face of the sky, if it was such as they had observed the night before, and into what sign the sun was entering, as also the moon for that day. Then he was dressed, and the lessons of the day before were repeated to him. Then for three good hours he had a lecture read unto him. Then they went to play in the fields, still conferring on the subject of the lecture, most gallantly exercising their bodies, as they had formerly done their minds. They left off when they were tired, and then returned to dinner. The dinner was made an occasion for teaching the nature of everything that was served at it, of bread, wine, water, salt, fleshes, fishes, fruits, herbs, roots, and of their dressing, the passages in ancient authors referring to them being read and learned. After dinner they conferred of the lessons read in the morning,

and then cards were brought in, not to play, but to learn a thousand pretty tricks and new inventions, which were all grounded upon arithmetic. By this means he fell in love with that numerical science, and every day, after dinner and supper, he passed his time in it as pleasantly as he was wont to do at cards and dice. And not only in that, but in the other mathematical sciences, as geometry, astronomy, music, etc. For in attending the digestion of his food, they made a thousand pretty instruments and geometrical figures, and did in some measure practise the geometrical canons. Then they sang and played for an hour." And, "digestion finished, he betook himself to his principal study for three hours together or more, as well as to repeat his matutinal lectures, as to proceed in the book wherein he was, also to write handsomely, to draw and form the antique and Roman letters." Then he went to the riding school and practised every feat of arms on horse and on foot. The list of bodily exercises which Gargantua performed is given with the usual exuberance of Rabelais. It comprises every exercise practised by modern athletes, and many more besides. In returning, his attention was directed to "all the plants and trees, and to what is written of them by the ancients." Being come to their lodging, while supper was making ready, they repeated certain passages of that which had been read, and then sat down at table. Here remark that his dinner was sober and thrifty, for he did then eat only to prevent the gnawings of his stomach, but his supper was copious and large. During that repast was continued the lesson read at dinner, as long as they thought good; the rest was spent in good discourse, learned and profitable. Then, after music and games, they went to bed. "When it

was full night, before they retired themselves, they went into the most open place of the house to see the face of the sky, and there beheld the comets, if any were, as likewise the figures, situations, aspects, oppositions and conjunctions of both the fixed stars and planets. Then, with his master, did he briefly recapitulate, after the manner of the Pythagoreans, that which he had read, seen, learned, done, and understood in the whole course of that day. Then prayed they unto God their Creator, in falling down before Him, and strengthening their faith toward Him, and glorifying Him for His boundless bounty; and, giving thanks unto Him for the time that was past, they recommended themselves to His divine clemency for the future, which being done, they went to bed, and betook themselves to their repose and rest." In rainy weather they stayed indoors and recreated themselves with the "bottling up of hay, cleaving of wood, and thrashing sheaves of corn at the barn." They visited all kinds of trades, heard lectures, pleadings, and sermons. Once a month they took a holiday in the beautiful country near Paris.

What is the practical advice to be derived from this? First a sensible tutor must be chosen. Rabelais shows no favor to public education. The hard work is about six hours a day. During the morning hours of study the pupil is to be lectured to; there is no talk of learning by heart. Great stress is laid upon physical exercise. Teaching is done by the personal influence of the tutor, and only subordinately through books. Natural objects are made use of as far as possible. The chief points on which Rabelais insists have been thus summed up by Arnstädt:[1]

[1] François Rabelais und sein Traité d'éducation. Leipzig, 1872.

(1) Teaching through the senses. (2) Independence of thought. (3) Training for practical life. (4) Equal development of mind and body. (5) Gentle treatment, and improved methods. In Gargantua's education there is no mention of punishment. Although by his insistence on the importance of learning things, Rabelais belongs to the realists, yet we shall see that he exercised a predominant influence on Locke and Rousseau, who are the principal advocates of naturalistic education.

Such were Rabelais' methods. The end which he proposed to himself to reach is set forth in a letter from Gargantua to his son Pantagruel, which, although it is possibly of earlier composition than the passages we have quoted, comes more properly after the narration of Gargantua's youth. "Although my deceased father of happy memory, Grandgousier, had used his best endeavors to make me profit in all perfection and political knowledge, and that my labor and study was fully correspondent to, yea, and went beyond, his desire, nevertheless the time was not so proper and fit for learning as it is at present, neither had I plenty of such good masters as thou hast had. For that time was darksome, obscured with clouds of ignorance, and savoring a little of that infelicity and calamity of the Goths, who had wherever they set footing destroyed all good literature, which in my age hath by the divine goodness been restored unto its former light and dignity; that amendment and increase of knowledge that now hardly should I be admitted to the first form of the little grammar school boys. I say, I, who in my youthful days was and that justly reputed the most learned of my age. Now it is that the minds of men are qualified with all manner of discipline, and the

old sciences revived which for many ages were extinct. Now it is that the learned languages are to their pristine purity restored, namely, Greek, without which a man may be ashamed to count himself a scholar, Hebrew, Arabic, Chaldean, and Latin. Printing likewise is now in use, so elegant, and so correct that better cannot be imagined, although it was found out in my time by a divine inspiration, as by a diabolical suggestion on the other side was the invention of ordnance. All the world is full of most knowing men, of most learned schoolmasters, and vast libraries, and it appears to me as a truth that neither in Plato's time, nor Cicero's, nor Papinian's, there was ever such conveniency for studying as we see at this day there is. Nor must any adventure to come in public or present himself in company that hath not been pretty well polished in the shop of Minerva. I see robbers, hangmen, freebooters, tapsters, cobblers, and such like, of the very rubbish of the people, more learned now than the doctors and preachers were in my time. . . . The very women and children have aspired to this praise and celestial manner of good learning. . . . Wherefore, my son, I admonish thee to employ thy youth to profit as well as thou canst, both in thy studies and in virtue.

"I intend and will have it so that thou learn the languages perfectly, first of all the Greek, as Quintilian will have it, secondly the Latin, and then the Hebrew for the Holy Scriptures' sake, and then the Chaldee and Arabic likewise, and that thou frame thy style in Greek after the manner of Plato, in Latin after that of Cicero. Let there be no history which thou shalt not have ready in thy memory, unto the prosecuting of which design books of cosmography will be very conducible, and help thee

much. Of the liberal arts of geometry, arithmetic, and music, I gave thee some taste when thou wast yet little and not above five or six years old. Proceed further in them and learn the remainder if thou canst. As for astronomy, study all the rules thereof. Let pass nevertheless the divining and judicial astronomy and the art of Lullius, as being nothing else but plain abuses and vanities. As for the civil law, of that I would have thee to know the texts by heart, and then to compare them with philosophy. Now in the matter of the knowledge of the works of nature, I would have thee to study that exactly; that so there be no sea, river, nor fountain of which thou dost not know the fishes, all the fowls of the air, all the several kinds of shrubs and trees whether in forests or orchards, all the sorts of herbs and flowers that grow on the ground, all the various metals that are hid within the bowels of the earth, together with all the diversity of precious stones that are to be seen in the orient and south parts of the world. Let nothing of all these be hidden from thee. Then fail not most carefully to peruse the books of the Greek, Arabian, and Latin physicians, not despising the Talmudists and Cabalists, and by frequent anatomies get the perfect knowledge of that other world called the microcosm, which is man. And at some of the hours of the day apply thy mind to the study of the Holy Scriptures, first, in Greek, the New Testament with the Epistles of the Apostles, and then the Old Testament in Hebrew. In brief let me see thee an abyss and bottomless pit of knowledge, for from henceforth as thou growest great and becometh a man, thou must part from this tranquillity and rest of study, thou must learn chivalry, warfare, and the exercises of the field,

the better thereby to defend my house and our friends, and to succor and protect them at all their needs against the invasions and assaults of evil doers." This letter is very properly dated from Utopia. It is a mixture of jest and earnest, and in it Rabelais may be seen "laughing in his easy chair" at the polymaths of his age. If the dates allowed it might be considered as a satire on Milton's Tractate.

The second great vindicator of naturalistic education, Montaigne, is more outspoken and more consistent. One of his longest essays is entitled "On the Education of Children," and is addressed to Madame Diane de Foix, Countess of Guerson. In other essays he touches on the same topic; in the essay on "pedantry," in that on "anger," in that on "books," in that on "the affections of fathers to their children." Although his precepts are not systematic, and are thrown out rather as hints for reflection, yet there is no doubt that they exercised a very important influence both upon Locke and Rousseau. Like Rabelais he was profoundly dissatisfied with the pedantry of his time. "To what use serves learning if the understanding be away." He says of the scholars of the age, "Whosoever shall narrowly pry into and thoroughly sift this sort of people, wherewith the world is so pestered, will, as I have done, find that for the most part they neither understand others nor themselves, and that their memories are full enough it is true, but the judgment totally devoid and empty." The dialectic of that age stuffed the heads of its pupils full of barren knowledge, ill digested, which weighed down the mind without developing it. Philosophy had hardened into a number of dry formulæ which were to be learned by heart,

and as Montaigne says, "Sçavoir par cœur n'est pas sçavoir." To learn by rote is no true knowledge. He is particularly alive to the danger of useless erudition. "Too much learning stifles the soul just as plants are stifled by too much moisture, and lamps by too much oil. Our pedants plunder knowledge from books and carry it on the tip of their lips, just as birds carry seeds to feed their young. The cares and expense our parents are at in our education point at nothing but to furnish our heads with knowledge; but not a word of judgment or virtue. We only toil and labor to stuff the memory, but leave the conscience and understanding unfurnished and void." The object of education in Montaigne's view must be to form the man. Before we are lawyers, doctors, merchants, and professors, we must be men. He tells a story how, going one day to Orleans, he met two pedants travelling toward Bordeaux about fifty paces distant from one another, and a good way further behind them he discovered a troop of horse with a gentleman in the head of them, namely the Comte de Rochefoucauld. One of his people inquired of the foremost of these Dominies who that gentleman was that came after him, who, thinking he meant his companion, pleasantly answered, "He is not a gentleman, sire, he is a grammarian, and I am a logician." Our object, says Montaigne, is to breed not a grammarian or a logician, but a complete gentleman.

For this purpose, the first thing is to find a good tutor, because upon the choice of him depends the whole manner of your education. He should rather have an elegant than a learned head, and his manners and his judgment are of more importance than his reading. The duty of the tutor will be to study the disposition of his pupil, yet this

should not be carried too far; "they ought to be elemented in the best and most advantageous studies, without taking too much notice of, or being too superstitious in, those light prognostics they give of themselves in their tender years." The tutor is "not to force knowledge into the pupil's ears as into a funnel, but is to put his capacity to the test, permitting his pupil himself to taste and relish things, and of himself to choose and discern them, sometimes opening the way to him and sometimes making him to break the ice himself; that is, I would not leave him alone to invent and speak, but that he should also hear his pupil speak in turn." This cannot be done in large schools, where masters are expected with one and the same teaching to instruct several boys of so different and unequal capacities. "At this rate it is no wonder if, in the multitude of scholars, there are not found above two or three who bring away any good account of their time and discipline. In examining the pupil, judge of the profit he has made not by the testimony of his memory but by that of his understanding. Let him make him put what he hath learned into a hundred several forms, and accommodate it to so many several subjects, to see if he yet rightly comprehend it and have made it his own. Let him make him examine and thoroughly sift everything he reads, and lodge nothing in his fancy upon simple authority and upon trust. That which a man rightly understands he is the free disposer of at his own full liberty, without any regard to the author, whence he had it, or fumbling over the leaves of his book."

Montaigne recommends as means of education conversation with men, and travel into foreign countries, "not to learn useless minutiæ of antiquity, but to be able chiefly

to give an account of the humors, manners, customs, and laws of those nations where he has been." A boy should be sent abroad very young, and into those neighboring nations whose tongue is most differing from his own. He advises a hardiness of bringing up. Mothers are too tender, and do not correct their children sufficiently, or allow them to undergo the hardships necessary for their training; "they would not endure to see them return all dust and sweat from their exercise, to drink cold water when they are hot, nor see them mount an unruly horse, nor take a foil in hand against a rude fencer, or so much as to discharge a carbine, and yet there is no remedy. Whoever will wish a boy to be good for anything when he comes to be a man must by no means spare him, even when so young, and must very often transgress the rules of physic." It is not enough to fortify his soul, you are also to make his sinews strong. Our very exercises and recreations—running, wrestling, music, dancing, hunting, riding, and fencing—will have to be a good part of our study. "I would have his outward fashion and mien, and the disposition of his limbs, formed at the same time with his mind. 'Tis not a soul, 'tis not a body that we are training up, but a man, and we ought not to divide him. In this intercourse with men, the pupil is not to become forward and impertinent, but to cultivate silence and modesty. He is to argue with self-restraint, and to learn to acquiesce, and submit to truth as soon as he discovers it, either in his opponent's argument, or on better consideration of his own. He is also to have implanted in him the honest curiosity of being inquisitive after everything, and whatever there is of singular and rare near the place where he shall reside, he shall go and see it—a fine

house, a delicate fountain, an eminent man, the place where a battle has been anciently fought, and the passages of Cæsar and Charlemagne."

The main study for a gentleman is the intelligent study of history. The manners, revenues, and alliances of princes, the great and heroic souls of former and better ages; "not the date of the fall of Carthage, but the behavior of Hannibal and Scipio; not where Marcellus died, so much as why he died there; not so much the narrative part, as the business of history. To some history is a mere grammar study, to others it is the very anatomy of philosophy, by which the most secret and abstruse parts of our nature are penetrated into. Whoever shall represent to his fancy that great image of our mother Nature portrayed in her full majesty and lustre, whoever shall observe himself in that figure, and not himself but a whole kingdom, no bigger than the least touch or prick of a pencil in comparison of the whole, that man alone is able to value things according to their true estimate and grandeur. The great world is the mirror wherein we are to behold ourselves, to be able to know ourselves as we ought to do. I would have this to be the book my young gentleman should study with the most attention." After having taught him what will make him more wise and good, you may then entertain him with the elements of logic, physics, geometry, and rhetoric, and the science which he shall then himself most incline to, his judgment being beforehand formed and fit to choose, he will quickly make his own. "The way of instructing him ought to be sometimes by discourse, and sometimes by reading. Sometimes his tutor shall put the author himself which he shall think most profitable for him into his hands, and

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sometimes only the manner and substance of it, and if he himself be not conversant enough in books to turn to all the fine discourses the book contains, then may some man of learning be joined to him, that upon every occasion shall supply him with what he desires and stands in need of to recommend to his pupil." Above all, education should be cheerful. The pupil is not to be imprisoned, or made a slave to his book. He is not to be given up to the morosity or melancholic humor of a sour, ill-natured pedant. His spirit is not to be cowed and subdued by applying him to the rack, and tormenting him fourteen or fifteen hours a day, and so make a pack-horse of him. "How many have I seen in my time totally brutified by an immoderate thirst after knowledge."

Montaigne speaks with horror of the severity of the colleges of his time. "'Tis the house of correction for imprisoned youth. Do but come in when they are about their lessons, and you shall hear nothing but the outcry of boys under execution, with the thundering noise of their pedagogues drunk with fury." George Buchanan, one of Montaigne's preceptors, has left us a similar picture. "Away with this violence! away with this compulsion! than which I certainly believe nothing more dulls and degenerates a well-descended nature. If you would have him apprehend shame and chastisement, do not harden him to them. Inure him to heat and cold, to wind and sun, and to dangers that he ought to despise. Wean him from all effeminacy and delicacy in clothes and lodging, eating and drinking. Accustom him to everything, that he may not be a Sir Paris and carpet-knight, but a sinewy, hardy, and vigorous young man. I have ever,

from a child to the age I now am, been of this opinion, and am still constant to it."

From this sketch of Montaigne's opinions, it will be easily seen how he found a follower in Locke, and how his lessons passed from Locke into our English schools. But we must remember that he naturally emphasizes the side of education which in his own day was much neglected. If he wishes his pupil not to grow up a pedant, he does not wish him to grow up an ignoramus. He commends the care taken by his father with his own education, and laments the time he wasted at the college of Guienne. In our own day it will do little harm to obey his precepts of practical education, if we also take care to grasp his conception of the intellectual furniture with which a statesman should be equipped.

CHAPTER VI.

ENGLISH HUMANISTS AND REALISTS—ROGER ASCHAM AND JOHN MILTON.

In the three preceding chapters we have given an account of the three principal schools of educationists, which continue to divide us by their controversies even at the present day: the Humanists, the Realists, and the Naturalists. But the examples chosen to illustrate them have been drawn entirely from foreign countries. The first two schools have been represented by Germans, the last by Frenchmen. In this chapter and the following one we

propose to give an account of the English representatives of those different schools of thought, Ascham, Milton, and Locke. The importance of the first has probably been overrated, the opinions of the second are imperfectly known, while the third has given a powerful bias to naturalistic education, both in England and on the Continent for the last two hundred years.

Roger Ascham was born in 1516. He entered St. John's College, Cambridge, in the year 1530, a well-grounded boy of fourteen. Stimulated by the seven years' activity of Erasmus, Cambridge was then in a very flourishing condition, and was regarded as the principal place of study for the classical languages. Ascham threw himself vigorously into the study of Greek. He lectured publicly on this language, and succeeded Sir John Cheke as public orator. His "Toxophilus, or Praise of Archery," written at the age of thirty, is one of the first works composed in pure English. This work attracted the notice of the Court, and from the time of its publication till his death in 1568, Ascham was, with few intermissions, employed, either about the Court or on foreign missions. He was Greek tutor to Queen Elizabeth. He had taught her Latin when princess, and was her constant and favored companion. His views on education are contained in a book called the "Scholemaster." [1]

His account of the occasion of its composition is very interesting. He says that when the Great Plague was at London in the year 1563, the Court lay at Windsor, and it happened on December 10th that Ascham and others

[1] The best edition of the "Scholemaster" is that by Professor Mayor of Cambridge. Milton's tractate should be reprinted in a separate form.

of the household were dining together in Sir William Cecil's chamber. "Not long after our sitting down, 'I have strange news brought me,' saith Mr. Secretary, 'this morning, that divers scholars of Eton ran away from the school for fear of a beating.' Whereupon Mr. Secretary took occasion to wish that some discretion were in many schoolmasters in using correction than commonly there is, who many times punish rather the weakness of nature than the fault of the scholar, whereby many scholars, that might else prove well, be driven to hate learning before they know what learning meaneth; and so are made willing to forsake their book, and to be willing to be put to any other kind of living. On this a discussion arose. Mr. Peter, as one somewhat severe of nature, said plainly that the rod only was the sword that must keep the school in obedience, and the scholars in good order. Mr. Wotton (not to be confounded with the famous Provost of Eton), 'a man mild of nature, with soft voice and few words,' inclined to Mr. Secretary's judgment, and said, 'In mine opinion, the school-house should be indeed, as it is called in name, the house of play and pleasure and not of fear and bondage, and therefore if a rod carry the fear of a sword, it is not marvel if those that be fearful of nature choose rather to forsake the play than to stand always within the fear of a sword in a fond man's handling.' Mr. Mason, after his manner, was very merry with both parties, pleasantly playing, both with the shrewd touches of many curst boys, and with the small discretion of many lewd schoolmasters. Mr. Hadden was fully of Mr. Peter's opinion, and said that the best schoolmaster of our time was the greatest beater, and named the person (Nicholas Udal, Head-master of Eton). 'Though,' quoth I, 'it

was his good fortune to send from his school to the University one of the best scholars, indeed, of all our time, yet wise men do think that came to pass rather by the great towardness of the scholar, than by the great beating of the master, and whether this be true or no, you yourself are best witness.' In this conversation Sir Richard Sackville said nothing at all." But after dinner Ascham went up to read with the Queen's Majesty. "We read then together, in the Greek tongue, as I well remember, that noble oration of Demosthenes against Æschines for his false dealing in his embassage to King Philip of Macedonie. Sir Richard Sackville came up soon after, and finding me in Her Majesty's privy chamber, he took me by the hand, and, carrying me to a window, said that he would not for a good deal of money have been this day absent from dinner, that he lamented his own beating in his youth, and determined to adopt a different method with his grandson." As Ascham had a son much of his grandson's age, he asked him to choose a schoolmaster who should educate the two boys together, and that he would pay for both. They then conversed on the general subject of education for some time, and Sackville asked Ascham to put down his views in a book. Ascham was suddenly called to the Queen. The night following he slept but little, and he determined to write a little treatise for the new year, but the work rose daily higher and wider than he expected. The book was not finished for some little time afterward.

The first part of the work is entitled "The bringing up of Youth," and the main lesson in it is that gentleness is to be used in education in preference to severity. In the second book, entitled "The ready way to the Latin

Tongue," Ascham explains his method at length. First the simple rules of accidence are to be learned in the grammar. Then Sturm's Epistles of Cicero is to be taken as a text-book. The master is to follow in some respects the method of Ratich. He is to explain the meaning of each epistle, to construe it to the child in English, to parse it over perfectly. This done, the child is to construe and parse it over again until he knows it. Then he is to take a paper book and write out by himself the translation of the lesson in English ; then, when this has been corrected by the master, he is after the interval of an hour to translate the English into Latin back again. The translation is to be compared by the master with Cicero's original. He is not to chide, but to say, " Tully would have used such a word, not this ; Tully would have placed this word here, not there ; would have used this case, this number, this person, this degree, this gender ; he would have used this word, this mood, this tense, this simple rather than this compound ; this adverb here, not there ; he would have ended the sentence with this verb, not with that noun or participle." In this way the scholar is to go through the first book of Sturm's selected Epistles, and a good piece of a comedy of Terence. But he is to speak no Latin, for, as Cicero says, *loquendo male loqui discunt.* In proceeding the scholar is to have longer lessons, he is to learn the rudiments of style, the meaning of *proprium* (literal), of *translatum* (metaphorical), of *synonymum* (synonymous), of *diversum* (differing in signification in certain respects), *contraria* (opposite in signification to each other.) He is to classify the words in order in a third paper book. In this way he is to work through the best writings of Tully, Terence, Cæsar, and

Livy. Then he is to translate into Latin some piece of English given him by the teacher. Ascham proceeds to pass in view other exercises in style which were in vogue in his time, and shows their inferiority to that which he recommends, but the book remains unfinished. We see in this that Ascham scarcely goes beyond his friend and master, John Sturm. His main object is the teaching of the Latin and Greek tongues. He is little else than a mere schoolmaster, careful and accurate in that capacity, but with no extended views or aims.

Very different in scope and spirit is the tractate of John Milton. It is written in the form of a letter to Mr. Samuel Hartlib, the son of a Polish merchant who resided mainly in London. He was a friend of every new discovery which seemed likely to advance the happiness of the human race. He took great interest in science, in the union of the Protestant Churches, and above all in education. He published, in 1651, "Propositions for the Erecting of a College of Husbandry Learning," or, in modern phraseology, an agricultural college, in which he proposed that apprentices, received at the age of fifteen, should after seven years' instruction receive money to set themselves up in a farm, and a yearly payment for four years. Also, in 1647, Sir William Petty, the founder of the Lansdowne family, wrote to Mr. Hartlib a letter containing a scheme for a trade or industrial school, a grand plan which we may possibly see realized in our own day by the establishment of a technological university in London. Sir William Petty says, "All apprentices might learn the theory of their trades before they are bound to a master, and consequently be exempted from the tedium of a seven years' bondage, and having spent but about

three years with a master, may spend the other four in travelling to learn breeding and the perfection of their trades." To the same category belongs Cowley's scheme of a philosophical college, published in 1661, the school part of which bears so much resemblance to Milton's scheme as to make it certain that Cowley in writing it must have had the former in his mind. Although these plans were never carried out, being indeed impossible in the troubled times of the Commonwealth and ill suited to the frivolous temper of the Restoration, they show us plainly enough the desire which was fermenting in men's minds for a better and more liberal education. Had they met with more success the English might have been by this time the best educated nation in Europe.

It was natural that Hartlib should have been especially attracted by the writings of Comenius, the great Moravian teacher, who announced to his age a discovery as important as that of Bacon, heralded with the same confidence, and promising as great results. We have become acquainted with the principles of Comenius in a previous chapter. We have seen that one of the most important points on which he insists is the simultaneous teaching of words and things. Endless time had been spent on the mere routine of language—why not at least attempt to utilize this labor, and while the drudgery of words and sentences is proceeding, take care that what is learned is worth remembering for itself. We shall find these same lines of thought running through Milton's tractate. Writing to Mr. Hartlib, he proceeds to set down "that voluntary idea, which hath long in silence presented itself to me, of a better education in time and comprehension far more large, and yet of time far shorter and of attain-

ment far more certain than hath yet been in practice." He asks his friend "to accept these few observations which have flowered off, and are as it were the burnishings of many studious and contemplative years altogether spent in the search of civil and religious knowledge, and since it pleased you so well in the relating, I here give you them to dispose of."

Milton begins by the principle that the end of learning is to repair the sins of our first parents by regaining to know God aright; and, because God can only be known in His works, we must by the knowledge of sensible things arrive gradually at the contemplation of the insensible and invisible. Now we must begin with language; but language is only the instrument conveying to us things useful to be known. No man can be called learned who does not know the solid things in languages as well as the languages themselves. Here we see asserted the important principle that words and things must go together, and that things are more important than words. The next principle with which we are familiar in the writings of Comenius and others, is that we must proceed from the easier to the more difficult. We are warned against "a preposterous exaction, forcing the empty wits of children to compose themes, verses, and orations, which are the acts of the ripest judgment." Matters were indeed far worse in Milton's time than they are now in this respect. We have to a great extent thrown off the tyranny of the grammarians and the schoolmen. But we are still guilty of the "error of misspending our prime youth at the schools and universities either in learning mere words or such things chiefly as were better unlearned." We have still as much need as ever that some

one should " point us out the right path of a virtuous and noble education, so laborious indeed at first ascent, but else so smooth, so green, and so full of goodly prospects and melodious sounds on every side that the harp of Orpheus was not more charming."

Milton defines what he means by education in the following words : " I call a complete and generous education that which fits a man to perform justly, skilfully, and magnanimously all the offices, both public and private, of peace and war." To attain this object, first a spacious house and grounds about it is to be found, fit for an academy to lodge about 130 students under the government of one head. This is to be both school and university, to give a complete education from twelve to twenty-one, not needing a removal to any other place of learning. There is something strange in the idea of welding together the school and university, but it was more consonant to the opinions and practice of Milton's own age. He himself spent at the university the years between fourteen and twenty-one ; the ordinary length of the academical course being seven years from entrance to the degree of M.A. So that his proposal is not so much to suppress the university as the school. Doubtless he saw little hope of reforming a large body like the university, or weaning it from the useless brabblements of the Aristotelian philosophy, whereas by a private establishment such as he describes the reform might be begun at once. We must remember also that the age of entrance at public schools is now what the age of entrance at the university was in Milton's time ; while many of our public school boys do not go to the university at all. The plan advocated by Milton is in this respect carried out in

France, and pupils graduate directly from the *lycée*, only attending afterward a special school of law or physic. Such institutions as Owens College at Manchester are doing precisely the work which Milton recommends.

Milton divides his scheme of education into three parts : (1) Studies ; (2) Exercise ; (3) Diet. In order to do justice to his method we must remember that he does not conceive of any education possible except through the Latin or Greek tongues. To make his precepts useful to us we must tear aside this veil, and go as deeply as we can into the principles which underlie his teaching, and infer what he would have recommended to us under a different state of things. In those days Latin was the language of the whole learned world. A man ignorant of Latin would have no access to the best books of the age, and no opportunity of communicating his thoughts to the world at large. It is natural, therefore, that he should recommend Latin grammar to be taught first, but with the Italian pronunciation of the vowels such as is rapidly making its way among us at the present day. But here at the outset the means are subordinate to the end. Language is to be the vehicle of moral teaching for the formation of a lofty character. The Pinax of Cebes, which as a school-book is coming now again into favor, and which advocates moral principles in simple language ; the moral works of Plutarch, one of the purest and most high-minded of the ancients, and the best dialogues of Plato are to be read to the youthful scholars. For here Milton says, " the main rule and ground-work will be to tempt them with such lectures and explanations upon every opportunity as may lead and draw them in willing obedience, inflamed with the study of learning and the

admiration of virtue, cheered up with high hope of living to be brave men and worthy patriots, dear to God and famous to all ages." Milton emphasizes the cardinal truth of education, that it resides not in the mechanical perfection of study and routine, but in the spirit of the teacher working in the heart of the pupil. The first step in education is to make the pupils "despise and scorn all their childish and ill-taught qualities, to delight in manly and liberal exercises, to infuse into their young hearts such an ingenuous and noble ardor as would not fail to make many of them renowned and matchless men." Together with their Latin exercises, arithmetic, and geometry, are to be taught playing, "as the old manner was," and religion is to occupy them before going to bed. Thus ends the first stage of their education. It should be remarked that the Greek authors, Cebes, Plutarch, and Plato, are to be read, of course in Latin translations, and that they are to be "read to" the boys probably in the manner recommended by Ratich and Ascham. As soon as they are masters of the rudiments of Latin grammar they are to read those treatises, such as Cato, Varro, and Columella, which are concerned with agriculture. The object of this is not only to teach them Latin but to incite and enable them to improve the tillage of their country, to remove the bad soil and to remedy the waste that is made of good. Then after learning the use of globes and maps, and the outlines of geography, ancient and modern, they are to read some compendious method of natural philosophy. After this they are to begin Greek, but the authors read have reference to natural science, which is at this period the staple of their education. When in their mathematical studies they have reached trigonometry, that

will introduce them to fortification, architecture, engineering, and navigation. They are to proceed in the study of nature as far as anatomy, and they are to acquire the principles of medicine that they may know the tempers, the humors, the seasons, and how to manage a crudity. No advocate of scientific education could have sketched out a more comprehensive plan of study in these departments.

Then follows a suggestion which has often been made by educational theorists, but not often tried. There are some minds which are inaccessible to purely abstract knowledge; learning takes no hold on them unless it is connected with doing, and it has occurred to many that, if to the whole curriculum of science there could be added a curriculum of practice, few pupils would be found incapable of receiving intellectual education. We find this feature in the Pædagogic Province of Goethe's "Wilhelm Meister," and the few occasions on which it has been tried give encouragement for its further use. Milton accepts it without reserve. "To set forward all these proceedings in nature and mathematics, what hinders but they may procure, as oft as shall be needful, the helpful experiences of hunters, fowlers, fishermen, shepherds, gardeners, apothecaries, and, in the other sciences, architects, engineers, anatomists, who, doubtless, would be ready, some for reward and some to favor such a hopeful seminary. And this will give them such a real tincture of natural knowledge as they will never forget, but daily augment with delight."

These rudimentary studies, classical, mathematical, and practical, may be supposed to have occupied them to the age of sixteen, when they are for the first time to be introduced to graver and harder topics. "As they begin

to acquire character, and to reason on the difference between good and evil, there will be required a constant and sound indoctrinating to set them right and firm, instructing them more amply in the knowledge of virtue and the hatred of vice. For this purpose their young and pliant affections are to be led through the moral works of Plato, Xenophon, Cicero, and Plutarch, but in their nightward studies they are to submit to the more determinate sentence of Holy Writ." Thus they will have traversed the circle of ethical teaching. During this and the preceding stage, poetry is to be read as an amusement, and as a golden fringe to the practice of serious labor. "And either now," Milton remarks, "or before this, they may have easily learned, at any odd hour, the Italian tongue." This sentence has often been quoted to show how visionary and baseless Milton's idea of education was. But experience is here in his favor, and those who have tried the experiment are well aware that Italian may easily be learned by intelligent and studious boys with little expenditure of time or interruption of other studies. Ethics is to be succeeded by politics. After the foundation of their character and principles, then is to follow their education as citizens. They are to learn "the beginning, end, and reason of political societies; that they may not in a dangerous fit of the Commonwealth be such poor, shaken, uncertain reeds, of such a tottering conscience as many of our good councillors have of late showed themselves, but steadfast pillars of the State." The study of law is to come next, including all the Roman edicts, and tables with Justinian, and also the Saxon law, and common law of England, and the statutes of the realm. "Sundays also and every evening may be now understandingly spent

in the highest matters of theology, and Church history, ancient and modern." By the age of eighteen Hebrew will have been learned, and possibly Syrian and Chaldaic. Tragedy will be read and learned in close connection with political oratory. "These, if got by memory and solemnly pronounced with right accent and grace, as might be taught, would endue them even with the spirit and vigor of Demosthenes or Cicero, Euripides or Sophocles." When their minds are truly stored with this wealth of learning, they are at length to acquire the art of expression, both in writing and in speech. "From henceforth, and not till now, will be the right season for forming them to be able writers and composers in every excellent matter, when they shall be thus fraught with an universal insight into things." Thus ends this magnificent and comprehensive scheme. "These are the studies wherein our noble and our gentle youth" (observe that Milton is thinking of the education of a gentleman) "ought to bestow their time in a disciplinary way from twelve to one-and-twenty, unless they rely more upon their ancestors dead than upon themselves living. In the which methodical course it is so supposed they must proceed by the steady pace of learning onward, as in convenient times to retire back into the middle ward, and sometimes into the rear of what they have been taught, until they have confirmed and solidly united the whole body of their perfected knowledge like the last embattling of a Roman legion."

One of the main hopes of the improvement of education lies in adopting the truth that manly and serious studies are capable of being handled and mastered by intelligent schoolboys. We might have hoped that the publication of John Stuart Mill's "Autobiography" would have

led to the imitation of the method by which he gained a start of twenty years over his contemporaries in the race of life. It seems to have produced the contrary effect. But no one can read Mill's letter to Sir S. Bentham without acknowledging that he had done at the age of thirteen nearly as much as Milton expected from his matured students. Mill was reading Thucydides, Euclid, and algebra at eight, Pindar and conic sections at nine, trigonometry at ten, Aristotle at eleven, optics and fluxions at twelve, logic and political economy at thirteen. He had also by this time written two histories and a tragedy. There is no reason to suppose that the studies thus early acquired did not form an integral part of his mind, or that when writing his standard works on logic and political economy, or sketching a complete scheme of education at St. Andrew's, he was not using the knowledge which he had acquired in these very tender years.

The physical exercise proposed by Milton for his students is of an equally practical character, and differs widely from the laborious toiling at unproductive games, which is the practice of our own day. With him amusement, emulation, bodily skill, the cheerfulness of bright companionship, are all pressed into the service of practical life. Dinner is taken at noon, and about an hour or an hour and a half before that meal is to be allowed them for exercise, and rest afterward. The first exercise recommended is "the use of the sword, to guard and to strike safely with edge or point. This will keep them healthy, nimble, strong, and well in breath, is also the likeliest means to make them grow large and tall, and to inspire them with a gallant and fearless courage." They are also to be practised in "all the locks and gripes of

the whole world as the fitting conclusion to a liberal education, and Milton, if he were writing now, might recommend an educational cruise such as has been attempted in America and France. Of diet, his last division, Milton tells us nothing except that it should be in the same house, and that it should be plain, healthful, and moderate.

In conclusion Milton anticipates some of the objections which might be raised against his plan, on the score of its impracticability, or its aiming at too high a standard. He admits that a scheme of this kind cannot be carried out except under the most favorable conditions, with teachers and scholars above the average. "I believe," he says, "that this is not a bow for every man to shoot in, that counts himself a teacher; but will require sinews almost equal to those which Homer gave Ulysses; yet I am withal persuaded that it may prove much more easy in the essay than it now seems at a distance, and much more illustrious, howbeit, not more difficult than I imagine, and that imagination presents me with nothing else, but very happy and very possible, according to best wishes, if God have so decreed, and this age have spirit and capacity enough to apprehend."

CHAPTER VII.

LOCKE.

The ideas on education first mooted in an irregular and jesting manner by Rabelais, then developed and made current in good society by Montaigne, were popularized

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The similarity between Locke and Montaigne is very apparent, and it will be well to examine it more closely. Both recommend education by a tutor rather than in a public school. In comparing the advantages of the home and the school Locke says, "I confess both sides have their inconveniences. Being abroad 'tis true will make him bolder, and better able to bustle and shift among boys of his own age, and the emulation of school-fellows often puts life and industry into young lads. But till you can find a school wherein it is possible for the master to look after the manners of his scholars, and can show as great effects of his care of forming their minds to virtue and their carriage to good breeding, you must confess

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in England by Locke, and through him exercised a mighty influence over Europe in the Émile of Rousseau. Although Locke's "Thoughts on Education" [1] are probably little read in the present day, they have had a powerful effect on the attitude of English society toward education, and, consciously or unconsciously, they determine the character of our most characteristic educational institution, the English public school. These schools, on their intellectual sides the creation of John Sturm and the Jesuits, have been deeply penetrated by the spirit of naturalism, but we imagine that few of those who defend the fresh air and healthy exercise, the self-government and the *savoir faire* which our public schools provide with such success, have any idea that the principles which they support from prejudice have their origin in the theories of two such philosophers as Locke and Rousseau.

The similarity between Locke and Montaigne is very apparent, and it will be well to examine it more closely. Both recommend education by a tutor rather than in a public school. In comparing the advantages of the home and the school Locke says, "I confess both sides have their inconveniences. Being abroad 'tis true will make him bolder, and better able to bustle and shift among boys of his own age, and the emulation of school-fellows often puts life and industry into young lads. But till you can find a school wherein it is possible for the master to look after the manners of his scholars, and can show as great effects of his care of forming their minds to virtue and their carriage to good breeding, you must confess

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that you have a strange value for words when . . . you think it worth while to hazard your son's innocence and virtue for a little Greek and Latin. For as for that boldness and spirit which lads get among their playfellows at school, it has ordinarily such a mixture of rudeness and ill-turned confidence that their misbecoming and disingenuous ways of shifting in the world must be unlearned, and all the tincture washed out again, to make way for better principles and such manners as make a truly worthy man." Great care is to be taken in the choice of a tutor, and no expense is to be spared. "He that at any rate procures his child a good mind, well-principled, tempered to virtue and usefulness, and adorned with civility and good-breeding, makes a better purchase for him than if he laid out the money for an addition of more earth to his former acres." The consideration of charge ought not to deter those who are able. Spare no care nor cost to get a good tutor. If you get a good one you will never repent the charge, but will always have the satisfaction to think it the money of all others the best laid out. Most parents only look for a sober man and a scholar, but "when such an one has emptied out into his pupil all the Latin and logic he has brought from the university, will that furniture make him a fine gentleman?" "To form the young gentleman as he should be, 'tis fit that the governor should himself be well-bred. This is an art not to be learned from books. Nothing can give it but good company and observation joined together." "The tutor, therefore, ought in the first place to be well-bred, and a young gentleman who gets this one qualification from his governor sets out with great advantage, and will find that this one accomplishment will more open his way to him,

get him more friends, and carry him further in the world than all the hard words or real knowledge he has got from the liberal arts or his tutor's learned encyclopædia."

Locke goes on to demand more than this from his ideal tutor, always in the spirit of Montaigne. "Besides being well-bred, the tutor should know the world well; the ways, the humors, the follies, the cheats, the faults of the age he is fallen into, and particularly of the country he lives in." The neglect of this often leads to the excesses into which young men run as soon as they are their own masters, "having been bred up in a great ignorance of what the world truly is, and finding it a quite other thing when they come into it than what they were taught it should be." "He that thinks not this of more moment to his son, and for which he more needs a governor, than the languages and learned sciences, forgets of how much more use it is to judge rightly of men, and manage his affairs wisely with them, than to speak Greek and Latin or argue in mood and figure, or to have his head filled with the abstruse speculations of natural philosophy or metaphysics." "A great part of the learning now in fashion in the schools of Europe, and that ordinarily goes into the round of education, a gentleman may in a good measure be unfurnished with without any great disparagement to himself, or prejudice to his affairs. But prudence and good breeding are in all the stations and occurrences of life necessary." "Latin and learning make all the noise, and the main stress is laid upon his proficiency in things a great part of which belong not to a gentleman's calling, which is to have the knowledge of a man of business, a carriage suitable to his rank, and to be eminent and useful to his country according to his station."

"The great work of a governor is to fashion the carriage and form the mind, to settle in his pupil good habits and the principles of virtue and wisdom, to give him by little and little a view of mankind, and work him into a love and imitation of what is excellent and praiseworthy, and in the prosecution of it to give him vigor, activity, and industry. The studies which he sets him upon are but as it were the exercises of his faculties, and employment of his time to keep him from sauntering and idleness, to teach him application, and accustom him to take pains, and to give him some little taste of what his own industry must perfect." We see from these passages that Locke like Montaigne laid greater stress on the formation of the character and of the personality of the man than on the culture of the intellect. "The great principle and foundation of all virtue and worth is placed in this; that a man is able to deny himself of his own desires, cross his own inclinations, and purely follow what reason directs as best, though the appetite lean the other way."

Locke also agrees with Montaigne in recommending travel at an early age, or else he would defer it with Rousseau until the education is completed, and the young man is fit to travel alone. He is strongly opposed to the practice, then common in England, of sending lads abroad at the age of fifteen or sixteen, when they were exposed to the severest temptations, and were least able to resist them. "The first season to get foreign languages, and form the tongue to their true accent, I should think should be from seven to fourteen or sixteen; and then a tutor with them is useful and necessary, who may with these languages teach them other things." "The time I should think fittest for a young gentleman to be sent

abroad would be either when he is younger under a tutor, whom he might be the better for, or when he is some years older, without a governor, when he is of age to govern himself, and make observations of what he finds in other countries worthy his notice, and that might be of use to him after his return ; and when, too, being thoroughly acquainted with the laws and fashions, the natural and moral advantages and defects of his own country, he has something to exchange with those abroad, from whose conversation he hoped to reap any knowledge." Locke complains that the chief drawback to this plan is the custom of early marriages among people of rank and fortune. His own pupil, the second Lord Shaftesbury, was married at the age of seventeen.

The most convenient way of giving an account of so well known and accessible a book will be to show in what respects Locke agreed with the rest of the naturalistic school. First, in respect to the methods of instruction. Books are not the most important instruments of learning. We must educate the senses, and through the senses train the intellect. The child is to be taught to read as soon as he can talk, but the learning is to be made as easy to him as possible. Basedow had biscuits baked in the form of letters, and children were allowed to eat any letter they could tell the name of. Similarly Locke recommends an ivory ball of twenty-four or twenty-five sides, with the different letters pasted upon them, beginning with four or even two. "To keep up his eagerness to it, let him think it a game belonging to those above him, and when by this means he knows the letters, by changing them into syllables he may learn to read without knowing how he did so, and never have any chiding or

trouble about it, nor fall out with books because of the hard usage and vexation they have caused him." When he has learned to read he is to have an easy, pleasant book put into his hand, such as "Æsop's Fables," with pictures, or "Reynard the Fox." "As soon as he begins to spell, as many pictures of animals should be got him as can be found, with the printed names to them, which at the same time will invite him to read, and afford him matter of inquiry and knowledge." We are here reminded of Pestalozzi teaching his poor children by the old tapestry in the castle of Burgdorf. He is to learn writing, drawing, and shorthand, and the first language which he begins after his own is French. Not till he can read and speak French well is he to begin Latin. Locke agrees with Montaigne that Latin is absolutely necessary to a gentleman, and in the method of learning which he recommends he follows what Montaigne tells us of his own childhood. We are not to begin with grammar. If possible a man is to be found who speaks good Latin, and is never to allow his pupil to speak or read anything else. This would be the true and genuine way. "Whereas a child might without pains or chiding get a language which others are wont to be whipped for at school six or seven years together." At the same time he might, as Milton recommends, be instructed in several sciences, and learn a good deal of geography, astronomy, chronology, anatomy, and some history, "and all other parts of the knowledge of things that fall under the senses, and require little more than memory. For there if we would take the true way, our knowledge should begin, and in these things be laid the foundation, and not in the abstract notions of logic and metaphysics, which are fitter

to amuse than inform the understanding in its first setting out toward knowledge." If a man cannot be got who speaks good Latin, then we are to adopt the plan of having literal translations, printed word for word, and line for line. This method has been very generally adopted since Locke's time, and usually bears the name of Hamilton. Locke shows the same confidence in the employment of the senses in another passage. "The globes must be studied, and that diligently, and I think may be begun betimes if the tutor will be but careful to distinguish what the child is capable of knowing and what not; for which this may be a rule that perhaps will go a pretty way, viz., that children may be taught anything which falls under their senses, especially their sight, as far as their memories only are exercised. And thus a child very young may learn which is the equator, and which is the meridian, which Europe and which England, upon the globes, as soon almost as he knows the rooms of the house he lives in, if care be taken not to teach him too much at once, nor to set him upon a new part till that which he is upon be perfectly learned and fixed in his memory." This method of object-teaching is perhaps the greatest service which the naturalistic school has rendered to the cause of education. Hinted at by Rabelais and Locke, still more largely developed by Rousseau, it has received in the last century a more accurate and scientific form, and is probably destined to become the source of a new curriculum in which literature will only hold a secondary place.

To encourage independence of thought rather than to amass a quantity of learning, to direct study rather to the strengthening of the powers of the mind than to acquiring

the furniture of crudities, is the key-note of Locke's advice on the "Conduct of the Understanding," and is one of the most important points on which the naturalistic school insists. This view of the objects of study is given most clearly in Locke's remarks upon this subject, which were written in his journal for his own use alone.[1] He says, "Our first and great duty is to bring to our studies and to our inquiries after knowledge a mind covetous of truth; that seeks after nothing else, and after that impartially, and embraces it, how poor, how contemptible, and how unfashionable soever it may be." Again, at the conclusion of the essay, "I will only say this one thing concerning books, that however it has got the name, yet converse with books is not in my opinion the principal part of study; there are two others that ought to be joined with it, each whereof constitutes their share to our improvement in knowledge, and these are meditation and discourse. Reading, methinks, is but collecting the rough materials, among which a great deal must be laid aside as useless. Meditation is as it were choosing and fitting the materials, framing the timbers, squaring and laying the stones, and raising the building; and discourse with a friend (for wrangling in a dispute is of little use) is as it were surveying the structure, walking in the rooms, and observing the symmetry and agreement of the parts, taking notice of the solidity or defects of the works, and the best way to find out and correct what is amiss; besides that it helps often to discover truths, and fix them in our minds as much as either of the other two."

Locke agrees with the rest of the advocates of the naturalistic school in insisting on a practical education,

[1] This essay is reprinted by Mr. Quick.

which is to fit a man for the world, and in this he has undoubtedly been partly influenced by the practical character which has always more or less distinguished our national culture, and he has partly done much to give this direction to our education. "Since it cannot be hoped," he says, "that [the pupil] should have time and strength to learn all things, most pains should be taken with what is most necessary, and that principally looked after which will be of most and frequentest use to him in the world. Seneca complains of the contrary practice in his time; and yet the Burgersdiciuses and the Scheiblers did not swarm in those days as they do now in these. What would he have thought if he had lived now, when the tutors think it their great business to fill the studies and heads of their pupils with such authors as these? He would have had the more reason to say as he does, *Non vitæ sed scholæ discimus;* we learn not to live but to dispute, and our education fits us rather for the university than the world."

Another characteristic of the same school of thinkers is their preference of kindness to severity, and the severe condemnation of the cruelty and harshness which disfigured the schools of the Middle Ages. It is now generally admitted that of the two chief means of compelling the attention of children, and inducing them to learn, pleasure is preferable to pain, but in Locke's day this truth was not recognized. He strongly condemns beating, still far too much in use in our public schools. "The usual lazy and short way by chastisement and the rod, which is the only instrument of government that tutors generally know or ever think of, is the most unfit of any to be used in education." "I cannot think

any correction useful to a child where the shame of suffering for having done amiss does not work more upon him than the pain." "Such a sort of slavish discipline makes a slavish temper." "Beating them and all other sorts of slavish and corporal punishments are not the discipline fit to be used in the education of those we would have wise, good, and ingenuous men, and therefore very rarely to be applied, and that only in great occasions and cases of extremity." The real incentives to virtuous exertion are the desire of esteem, and the fear of disgrace. But after all, the "right way to teach is to give them a liking and inclination to what you purpose them to be learned, and that will engage their industry and application. This I think no hard matter to do if children be handled as they should be." "None of the things they are to learn should ever be made a burden to them, or imposed on them as a task." "As a consequence of this they should seldom be put doing even those things you have got an inclination in them to, but when they have a mind and disposition to it." Here we seem to have reached the most modern conclusions of Herbert Spencer. Get them but to ask their tutor to teach them as they do often their playfellows, instead of his calling upon them to learn, and they being satisfied that they act as freely in this as they do in other things, they will go on with as much pleasure in it, and it will not differ from their other sports and play. By these ways carefully pursued a child may be brought to desire to be taught anything you have a mind he should learn."

Finally Locke agrees with Rabelais, Montaigne, and Rousseau in laying great stress on the importance of bodily training. It is as important as that of the mind.

He says at the very outset of his treatise, "A sound mind in a sound body is a short but full description of a happy state in this world. He that has these two has little more to wish for; and he that wants either of them will be but little the better for anything else." Locke's advice as to the health of children occupies the first thirty sections of his essay. In Mr. Quick's edition a distinguished physician shows how far Locke's advice corresponds with the best medical science of the present day. He says that only on one important point can his advice be considered wrong, and that is where he recommends that children's boots should have holes in them in order that they may be kept constantly wet. Locke's advice on physical training consists mainly of the following points. 1. Children are to be hardened to cold and heat, and not protected too carefully against extremes of temperature. 2. They are to wash the feet at least, if not the whole body, in cold water. 3. They are to learn to swim, and to live as much as possible in the open air. 4. They are to wear loose clothing. 5. They are to eat little meat, none at all for the first three or four years of life, little sugar, and no spice. When a child is hungry between meals, let him eat a piece of brown bread. 6. A child's meals are to be irregular. 7. He is to drink small beer (which in Locke's time took the place of water), but never until he has eaten something; wine and strong drink is on all accounts to be avoided. 8. Ripe fruit is much to be commended, especially before or between meals. 9. Children are to go early to bed, and are to rise betimes. Eight hours' sleep is enough for most children. The bed is not to be soft, and children must be gently wakened. 10. Great care is to be paid to the

regularity of the digestion. 11. As little physic is to be taken as possible. "And thus," Locke says, "I have done with what concerns the body and health, which reduces itself to these few and easy observable rules—plenty of open air, exercise, and sleep, plain diet, no wine or strong drink, and very little or no physic, not too warm or strait clothing, especially the head and feet kept cold, and the feet often used to cold water and exposed to wet."

Such are the most characteristic features of Locke's principles of education. Whether his treatise is much read now or not, there can be no doubt that it was at one time popular in England, and many of the precepts which he was the first to suggest have become traditional in practice. Its sound common-sense and good judgment would make it particularly acceptable to the English mind, and, with the exception of Milton's tractate on education, which would seem visionary to the superficial reader, it is one of the few works of importance on education which appeared in England until the essays of Mr. Spencer. As we have before said, there can be little doubt that it has at some time or other had a considerable influence on the system of our public schools. But there are some portions of it, extremely valuable, concerned with subjects on which Locke was well qualified to speak, which have been unaccountably neglected. Among these are his strong condemnation of Latin themes and verses, and of the practice of saying by heart. "By all means obtain if you can that [your son] be not employed in making Latin themes and declamations, and least of all verses of any kind." "Do but consider what it is in making a theme that a young lad is employed about; it is to make a speech on some Latin saying, as *Omnia vincit amor*, or

Non licet in bello bis peccare, etc. And here the poor lad who wants knowledge of these things he is to speak of, which is to be had only from time and observation, must set his invention on the rack to say something where he knows nothing, which is a sort of Egyptian tyranny to bid them make bricks who have not yet any of the materials. And therefore it is usual in such cases for the poor children to go to those of higher forms with this petition, *Pray give me a little sense*, which whether it be more reasonable or more ridiculous is not easy to determine." On the other hand, the practice of debating rational and useful questions in extempore speeches is extremely valuable. If themes are set in order to teach Latin, that is not the way to it, "when they are making a theme 'tis thoughts they search and sweat for, and not language." "If boys' invention be to be quickened by such exercise, let them make themes in English, where they have facility, and a command of words, and will better see what kind of thoughts they have, when put into their own language." The case against verses is stated still more strongly. "If these may be any reasons against children's making Latin themes at school, I have much more to say, and of more weight, against their making verses—verses of any sort. For if he has no genius to poetry 'tis the most unreasonable thing in the world to torment a child, and waste his time, about that which can never succeed, and if he have a poetic vein 'tis to me the strangest thing in the world that the father should desire or suffer it to be cherished or improved." "But yet if any one will think poetry a desirable quality in his son, and that the study of it would raise his fancy and parts, he must needs yet confess that to that end reading the

excellent Greek and Roman poets is of more use than making bad verses of his own in a language that is not his own. And he whose design it is to excel in English poetry would not, I guess, think the way to it were to make his first essays in Latin verses."

It is strange that, notwithstanding the denunciations of Locke, Milton, and Macaulay, the two last of whom cannot be thought to have been insensible to literary or poetical grace, the practice of writing original themes and verses in dead languages should occupy a position of such importance in our public schools. Great as is the burden to the boys, the correction of their exercises is a heavier labor to the masters. In some schools it occupies so much time as to make self-improvement and the proper preparation of lessons impossible. No seriously beneficial change in our public school education can be looked for unless the worship of this idol is once for all abolished.

Locke declaims with equal decisiveness and force against the practice, so common in our schools, of repeating long passages of classical authors by heart. It does not, he says, improve the memory. "The gift of memory is owing to a happy constitution, not to any habitual improvement got by exercise. 'Tis true that what the mind is intent upon, and for fear of letting it slip often imprints afresh on itself by frequent reflection, that it is apt to retain, but still according to its own natural strength of retention." In fact, memory comes from interest. What children are deeply interested in they will never forget. A boy who can never say his lesson by heart will remember every detail of the cricket or football matches in which his heart really lies. Besides, at best, this learning by heart is but learning to forget

again. An Italian preacher will recite by heart a long sermon without loss of a word, but a week afterward he will not remember a word of it. Children should learn by heart what they are intended never to forget, and "therefore," says Locke, "I think that it may do well to give them something every day to remember, but something still that is in itself worth the remembering, and which you would never have out of mind whenever you call or they themselves search for it."

Locke's treatise is of great value to teachers, but it has serious defects. Among these is his strange neglect of science. Although he gives full credit to the work of Newton in explaining the operations of the solar system, he appears to have little hope that the same system of induction would lead to similar conquests in other spheres. Also, as he admits, he has "touched little more than those heads which I judged necessary for the breeding of a young gentleman. Whereas a prince, a nobleman, and an ordinary gentleman's son should have different ways of breeding." Therefore it cannot be considered as a general treatise on education applicable to the mass of the people, or even to the conduct of a large school. Also the character of the work is to some extent polemical, that is, the author attacks vigorously those points in the received system which he wishes to see changed. Had it been otherwise he might have given more weight to intellectual education, as, in the "Thoughts concerning reading and study for a gentleman," he admits that the gentleman's "proper calling is the service of his country, and so is most properly concerned in moral and political knowledge, and thus the studies which more immediately belong to his calling are those which treat of virtues and

vices, of civil society and the arts of government, and will take in also law and history." But even here he adds the caution that "men of much reading are greatly learned but may be little knowing."

The treatise of Locke should be carefully studied by every schoolmaster, and the more so because, although by his system of philosophy he disbelieved in the existence of innate ideas, and regarded the child's mind as a piece of white paper or as wax to be moulded, yet he does not deny the existence of different inherited capacities in different individuals. "Each man's mind has some peculiarity as well as his face, that distinguishes him from all others, and there are possibly scarce two children who can be conducted by exactly the same method."

CHAPTER VIII.

JESUITS AND JANSENISTS.

WHATEVER abuse has been lavished for three hundred years upon the heads of the Jesuits, an exception is generally made in reference to their services in the cause of education. Bacon speaks of them with the highest praise, and regrets that similar reformers are not to be found in other countries. He says in the "Advancement of Learning," "for what concerns the instruction of youth there is only one word to say—consult the classes of the Jesuits, for there can be nothing better." He says in another passage that when he thinks of them he recalls what Agesilaus said of Pharnabazus, "Talis cum

sis utinam noster esses." Descartes also considered their college of La Flèche as one of the best schools in Europe, although he attributes its merit rather to the variety of the students and their influence on one another than to any excellence of teaching on the part of the fathers themselves. Public opinion was certainly on their side. Under Henry III., Henry IV., Louis XIII., Louis XIV., the Jesuit colleges in France were always crowded, in spite of the opposition of the university, and at the beginning of the sixteenth century they had nearly 14,000 pupils in the province of Paris, and more than 1800 in the College of Clermont. In the middle of the eighteenth century, just before the dissolution of the order, it contained 22,589 members. The order had 669 colleges and 117 seminaries. The latest census reckons the order as consisting of 9546 members, of whom three thousand were in France, and a little over a thousand in England.

An account of the system of education given by the Company of Jesus is contained mainly in four books. 1. The Original Constitutions of Ignatius Loyola, with the commentary of his successor, Laynez. 2. The "Ratio Studiorum," drawn up by a special commission under the eyes, and by the authority, of Aquaviva. It is divided into twenty-eight sections. It contains statutes for the provincial, the rector, the prefects of studies, the professors of the superior faculties, the prefects of the inferior studies, the teachers of the lower classes, and for the other preceptors and students of the order. It is a programme of studies, indicating with the greatest minuteness their order and their division, the subjects of teaching in each class, the duties of each professor. The drawing up of this important work was begun in 1582,

but it was not printed till 1599. 3. In 1706 was published at Frankfort a third book, the treatise of Father Jouvency, "De ratione discendi et docendi magistris scholarum inferiorum." 4. With this is generally included a treatise by Sacchini, published at Rome 1625, "Paræsenesis ad magistros scholarum inferiorum." The last two may be considered as the completion of the "Ratio Studiorum," based on the methods in use at the College of Clermont. The four books are closely connected together. The "Ratio Studiorum" is a commentary upon the Constitutions, the manuals of Jouvency and Sacchini are the directors of the teacher, guarding him at every step and guiding him in every particular.

We find that in France, and similarly in other countries, the colleges of the Company were divided into three classes. 1. The great colleges with a revenue of 20,000 francs, containing about 100 teachers, in which were taught, besides the classics and sciences, theology and Eastern languages, with a special view to missions. 2. The middle colleges, with a revenue of 16,000 francs and about fifty teachers, instructing only in classics and philosophy, this last consisting of logic, morals, metaphysics, physics, and mathematics. 3. Small colleges, with a revenue of 10,000 francs and a staff of from twenty to forty teachers, dealing only with the ordinary classical curriculum and morality. The education was gratuitous, and the poor and the rich were educated together. This however did not prevent the colleges from receiving presents, and the amount of these received from the richer students shows that they were well able to educate the poorer students for nothing. The colleges began as seminaries for the novices of the order; then outdoor pupils were ad-

mitted at the request of the public ; then bursaries were added by private munificence ; and, lastly, the sons of rich and noble families were admitted also. Besides the regular colleges, other institutions were founded under the direction of the rector, such as *convictoria alumnorum*, boarding schools in which a small sum was paid for board and lodging. Seminaries exclusively for the education of priests, and schools into which none were admitted except the scions of noble families. We have only to deal now with the little colleges which belong to secondary or school education. These were governed by a rector and a prefect of studies. His duty was to visit the classes, to conduct the examinations, and generally to inspect the work of teachers and pupils. Under him a sub-prefect attended especially to discipline. The school was divided into five classes : the class of Rudiments, the class of Grammar, the class of Syntax, the class of Poetry, and the class of Rhetoric. These classes might be subdivided but were never confused. The Jesuits were the inventors of " parallel forms," a system now common in our public schools. The course lasted six years, the first four classes occupying a year each, the class of Rhetoric two years. The main object of the whole instruction was knowledge of Latin. This was the language of the Jesuits, and served at the same time to separate them from the common herd, and to unite them by a bond of union which was independent of the differences of speech and country. The great object of their education was style. They knew too well the dangers of pagan literature to indoctrinate their pupils with the spirit of the classics.

In the class of Rudiments were taught the Latin de-

clensions and conjugations, and the first beginnings of syntax. Cicero's letters were read, *De viris illustribus*, fables of Phædrus, and Cornelius Nepos. The school hours were two and a half hours in the morning and the same in the afternoon. The time was carefully subdivided by half hours and quarter hours. Rules of grammar and portions of authors were explained; both of these were learned by heart and repeated, not to the master but to the *decurions* or heads of tens, the *Zehntmänner* of Comenius. A little composition was done and carefully corrected. By a practice called *concertatio*, pupils were stimulated to challenge each other's mistakes, an usage long kept up at Westminster. To develop copiousness of diction, long vocabularies of Latin words were learned and classified according to the categories to which they belonged. The second class, called Grammar or little Syntax, carried the knowledge of Latin further. Selections of Ovid were read, Cæsar, Cicero's *de Amicitiâ* and *de Senectute*, Vergil's Eclogues and Georgics. The third class of Grammar completed the knowledge of syntax and prosody. Greek was learned in all three classes by the side of Latin, only to a much less extent. Religion received a good deal of attention; of arithmetic, geography, history, and modern languages not a word is said. The two upper classes were called the classes of Humanities; the first was called Humanity or Poetry, the second Rhetoric. These high-sounding names were scarcely warranted by the facts. The "Ratio Studiorum" states that the business of "Poetry" is to prepare the groundwork of eloquence, and this in three ways—by the knowledge of the language, by erudition, and by a short instruction in the rules of rhetoric. "Rhetoric" is to form the pupil to a

perfect eloquence, to the faculty of the orator and the poet, but the first is the most important. In short we see that the object of these three last years is the formation of a Latin style in prose and poetry. For this purpose the speeches of Cicero were read, Cæsar, Sallust, Livy, Curtius, Vergil, Horace, and other Latin authors. These were carefully expurgated. To this was added the other exercises of classical education with which we are familiar in our public schools—repeating passages by heart, the writing of Latin themes and verses, for the better composition of which the "Gradus ad Parnassum" was invented by a Jesuit, concertations, declamations, and the acting of Latin plays. In the three lower classes half-an-hour a day had been devoted to Greek, in the two upper this time was doubled. If we may judge by the list of Greek authors which were supposed to be read, considerable proficiency must have been attained. It comprises Demosthenes, Plato, Thucydides, Homer, Hesiod, Pindar, and others of the same kind, Gregory of Nazianzen, Basil, Chrysostom, writings of Lucian, Plutarch, Herodian, Sophocles, and Euripides. But we know that this imposing parade meant but little, and that but little energy and vigor were really put into this study. All knowledge which was not language or style was classed by the Jesuits under the name of erudition, and to this were to be devoted extraneous hours, but no portion of the regular curriculum. These subjects might properly be learned on whole holidays, or got up by students as preparation for examinations. Among the subjects of erudition were included arithmetic, history, geography, and the elements of algebra and geometry.

Let us examine the daily work of a Jesuit school. The

bell sounds at half-past six, and the scholars gradually assemble. At seven all attend mass, and at half-past seven the work of the day begins. After a short prayer, the master mounts his desk, and the boys say their lessons by heart to the *decurions*, while the master collects and corrects the exercises, and hears some lessons himself. From eight to nine the lessons of the day before are gone over, and a lecture is given on the new matter to be learned during the day. At nine the subject of a short composition is given out, which must be written, corrected, and copied out within the hour. While the boys are writing, the master calls up some of the weaker students and gives them private explanations. At ten the school is dismissed. They come together again at half-past one. Lessons are again heard by the *decurions*, and exercises corrected by the master. The lessons previously given out are repeated, and new ones set. At three the composition of the morning is corrected by the master, and places are taken and lost. At half-past three the exercise to be done at home is given out, and the day ends with a concertation or challenging. This is the order for Mondays and Wednesdays, which are whole school days. Tuesday and Thursday are different, and one of them is a half-holiday. On Friday especial attention is given to religious instruction, and on Saturday the work done during the week is examined by the master, with a general competition among the students. Such was the normal order, but it was terribly broken up by saints' days and festivals of the Church. What first attracted pupils to the Jesuits in France was the greater mildness of discipline compared with the colleges of the University. Corporal punishment was not entirely abolished—it was in-

flicted by a servant, and not by the fathers themselves—but suavity and the use of persuasion was prescribed before everything. At the same time complete and absolute obedience was exacted from the children. Another feature in their favor was the isolation of the colleges. High walls surrounded them. Heavy doors shut them in. There were no servants to corrupt, no fathers to laugh at the escapades of their sons. The pupils were kept under surveillance in the streets to and from lecture.

We have seen that the Jesuits owed their success partly to the very narrow task which they set themselves, little beyond the teaching of Latin style, and partly to the careful training which they gave their students, a training which often degenerated into mere mechanical exercise. But the mainspring of their influence was the manner in which they worked the dangerous force of emulation. Those pupils who were most distinguished at the end of each month received the rank of *prætor*, *censor*, and *decurion*. The class was divided into two parts, called Romans and Carthaginians, Greeks and Trojans. The students sat opposite each other, the master in the middle, the walls were hung with swords, spears, and shields, which the contending parties carried off in triumph as the prize of victory. These pupils' contests wasted a great deal of time. The Jesuits established public school festivals, at which the pupils might be exhibited, and the parents flattered. They made their own school-books, in which the requirements of good teaching were not so important as the religious objects of the order. They preferred extracts to whole authors ; if they could not prune the classics to their fancy, they would not read them at all.

What judgment are we to pass on the Jesuit teaching

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as a whole? It deserves praise on two accounts. First, it maintained the dignity of literature in an age which was too liable to be influenced by considerations of practical utility. It maintained the study of Greek in France at a higher level than the University, and resisted the assaults of ignorant parents on the fortress of Hellenism. Secondly, it seriously set itself to understand the nature and character of the individual pupil, and to suit the manner of education to the mind that was to receive it. Whatever may have been the motives of Jesuits in gaining the affections, and securing the devotion of the children under their charge; whether their desire was to develop the individuality which they probed, or to destroy it in its germ, and plant a new nature in its place; it must be admitted that the loving care which they spent upon their charge was a new departure in education, and has become a part of every reasonable system since their time. Here our praise must end. The systematizing of their classes and of their curriculum, for which Ranke praises them, was borrowed from John Sturm, and marred in the stealing. If Sturm is responsible for the predominance of a narrow classical education in our higher schools, the Jesuits are responsible for giving that education a more frivolous and more effeminate turn. They taught classics not because they were the best means of training the intellect, but because they were fashionable, and having accepted them they tried to render them as innocuous as possible. They amused the mind instead of strengthening it. They occupied in frivolities such as Latin verses the years which they feared might otherwise be given to reasoning and the acquisition of solid knowledge. Our Protestant schools have fallen

only too readily into the trap. Nothing shows more clearly the essential weakness of their system than its inadaptability to modern wants. The "Ratio Studiorum" has been revised by the late and the present generals of the order, Father Roothan and Father Bekcx. But they found it impossible to remodel without destroying it. Celebrated as the Jesuit schools have been, they have owed much more to the fashion which filled them with promising scholars, than to their own excellence in dealing with their material. Voltaire found out their rottenness. "I learned nothing from the Jesuits," he said, "but Latin and rubbish." They have never stood the test of modern criticism. They have no place in a rational system of modern education. We have long ceased to regard them as models, but we still suffer our schools to be encumbered with methods and practices which we should never have thought of introducing if it had not been for their brilliant but ephemeral success.

Very different was the character of the schools of Port Royal, founded by that brilliant society of Jansenists who clustered round the monastery of Angélique Arnauld. They form the most hopeful experiment in education which was ever attempted in France, and in estimating the influence of the Jesuits we cannot leave out of the account that the success of these schools was foiled by their narrow-minded jealousy and opposition. The education of Port Royal has had a reputation which is out of proportion either to the time during which it existed or to the number of scholars which it trained. The little schools, *petites écoles* as they were called, in order that they might not seem to clash with the University, were founded in 1643. They existed only seventeen years, having been

suppressed in 1660. It is probable that they had at no time more than fifty pupils. Their locality was repeatedly changed, sometimes to avoid the troubles of the civil war, sometimes to escape persecution. For the most part they were held at Port Royal des Champs, in a secluded valley, hidden among the woods which border the park of Versailles, sometimes at the houses of les Granges, of Chesnai, or at the Château des Trous. When they were destroyed in 1660 by the jealousy of the Jesuits, who were influential at court, the masters, persecuted and imprisoned, devoted themselves to the work of recording their experiences in writing. The principal teachers were—Nicole, whose thoughts are not unworthy to be ranked by the side of Pascal's. His views on education are best expressed in his book on the education of a prince. Next is Lancelot, the Melanchthon of the movement, the writer of admirable school-books, the "Méthodes de Port-Royal," and the "Jardin des Racines Grecques," which taught Greek to Gibbon. The greatest of all is Arnauld, the polemist of the sect, who contributed to the logic and the general grammar some of their best pages.

One of the chief characteristics of the school of Port Royal distinguishes them at once from the Jesuits. They entirely discouraged emulation as being contrary to the principles of Christian charity. Pascal complained that this made the pupils a little slack and dull, but, compared with the frivolous contests of their rivals, it was a fault on the right side. Again, the classes never consisted of more than five or six children under the care of a single master. This gave the teacher opportunity to study the individual peculiarities of his pupils, and gave the fullest scope to the action of personal influence. At the same time over-

familiarity was discouraged. The masters were never to forget the reverence due to the indwelling of the Holy Spirit, and the boys were not allowed to *tutoyer* each other in their private conversations. A further difference between them and the Jesuits is that they founded their studies in the French language and not in Latin. The century which had intervened from the foundation of the Jesuit schools made it easier to do this, because during that time the French language as we know it had come into existence. The Jansenists set the example of making good translations. In 1647 they published the fables of Phædrus, French and Latin side by side, "*Pour servir à bien entendre la langue latine et à bien traduire en françois.*" In 1647 followed the translation of the "Andria," the "Adelphi," and the "Phormio" of Terence, "*rendues très honnêtes en y changeant fort peu de chose.*" At a later time followed translations of the "Captives of Plautus," of some of the letters of Cicero to Atticus, of a selection of Cicero's letters to his friends, of the Eclogues, Georgics, and some books of the Æneid of Vergil. Although many of these books appeared after the destruction of their schools, they were conceived and written during their existence, and arose directly out of the methods employed.

The teachers of Port Royal set out with the principle that instead of making learning harsh and crabbed, and wasting valuable years over the first elements, it was right to assist the students as much as possible, and to make study if they could even more agreeable than play or amusement. For this reason they began with French, but even here there was an innovation. In teaching the alphabet they called the letters not by the names ordinarily

given to them by grammarians, but by the sounds which they ultimately bear in the compounded words, so that only the vowels and diphthongs were pronounced alone, the consonants only in combination with them. This method is attributed to Pascal, but it may be much older. To Port Royal also is attributed the invention of steel pens, a great boon to children. After learning French the pupils read translations of the classics, and familiarized themselves with their matter. Then Latin was attacked. Translations were made from French into Latin, not in writing, but *vivâ voce*. Instead of learning the elaborate grammar of Despautère, then in vogue, after making themselves acquainted with the simple declensions and conjugations, they learned lists of the indispensable nouns, pronouns, verbs, and adverbs. The rules were supplied by the teacher in his *vivâ voce* translation. Thus beginning by reading the authors in Latin which they had already learned to know in French, and being guided step by step by a sympathetic master, who had a small number of pupils, they had learned a good deal of the language by the age of ten or twelve. In the matter of Latin verses they were far in advance not only of their age, but of our own. Arnauld, in his "Règlement d'Études," says that it is waste of time to give the pupils verses to compose at home. "Among seventy or eighty boys perhaps two or three will get something from them." The rest will only torment themselves to no purpose. Arnauld admits the composition of occasional extempore verses on a given subject. In Greek they were guilty of a great innovation. They taught it directly from the French, and not through the medium of Latin. The Jesuits stigmatized this as impious. "Is it not," they said, "to

destroy at the same time the French and Latin languages, and to break the connection which has lasted for ages between France and Rome?" Indeed, as Lancelot remarks, and as many others have thought besides, Greek is easier for children than Latin. The words are hard, but the construction is simple. No book exists in Latin so easy and attractive for children as the Odyssey of Homer. There is much to be said for teaching Greek before Latin. This was the practice of the great Étienne, of Bishop Blomfield, and of James Mill.

The garden of Greek roots, however useful in its day, would now justly incur severe criticism. It is a catalogue of simple Greek words, not roots in the strict philological sense, arranged in short rhyming stanzas with their meanings in French. M. Dübner, in a letter to Sainte Beuve (Port Royal, iii. 620), has some admirable remarks on this book. 1. Lancelot takes too little account of usage. Very rare words are found side by side with very common words, and some of the words included have even been forged by the grammarians. 2. He mixes up poetical words with those in common use. 3. By the exigencies of rhyme he is often led to give a false meaning. Indeed the book is entirely out of date, and is rendered quite useless by the excellent dictionaries of modern times. Lancelot's rhymes contain about 3000 words, whereas those most necessary to be known are not more than 600 or 700. M. Dübner says, at the same time, that other reforms which he himself proposed to the University of Paris, from 1856 to 1863, were similar to those inaugurated by the teachers of Port Royal, of the existence of which he was then ignorant. Among these were to attack Greek directly and not through the medium of Latin ;

to begin to read immediately after having learned the regular declensions and conjugations ; to learn the syntax by observation, and not to go over it systematically until it had become familiar by usage ; to read a great deal, not to compose until the power of easy reading had been acquired ; to allow the pupils to choose their own subjects for composition according to the matters which most interested them in their reading ; to put an end to the prodigious abuse of written versions. If this advice had been followed the classical languages would have had a better chance than they now have of holding their own in the French curriculum.

Another feature of the Port Royal education is the important place which they gave to modern languages. Lancelot wrote methods of learning both Italian and Spanish, and four treatises on Latin, French, Italian, and Spanish poetry. But the advanced character of their teaching is best seen by their works on general grammar and on logic, two models of good sense applied to subjects, the very teaching of which was a novelty. The general grammar is due to the powerful mind of Arnauld. He attempted to penetrate into the philosophy of the art of speech, the science of language. Bacon had before noted a work of this kind as a desideratum to be filled up. The time was not yet come when it could be done with success. Since the time of the Jansenists the discovery of Sanscrit and its relations to Greek and Latin, of the Indian conception of grammar as opposed to the Alexandrian, the clear definition of the principal families of languages, and the relegation of Hebrew to its proper place among them, have led to the construction of a science of language which rests on fact and not on theory. Yet

Arnauld deserves great credit for having seen that a science of comparative grammar was an intellectual possibility. The Port Royal logic, perhaps the most celebrated of their works, owes its origin to the same commanding mind. It is based on the "Discours de la Méthode" of Descartes, and on the essays of Pascal, "De l'Esprit Géométrique," and "De l'Art de Persuader." It breaks at once with the formal logic of the Schoolmen. It divides the operations of the mind into four. 1. Conception (or ideas). 2. Judgment (or propositions). 3. Reasoning. 4. Arrangement (or method). In treating of the syllogism it remarks that the greater part of the errors of mankind arise rather from reasoning on false principles than from reasoning badly on the principles which they adopt. The chapter on fallacies is particularly instructive. The examples have constant reference to practical life or to the inculcation of good moral principles. The "Elements of Geometry," by Arnauld, which were long in use at Port Royal before they were printed, were so good that Pascal destroyed the treatise which he had composed on the same subject.

The discipline of Port Royal was not at all severe, and was maintained by the self-sacrifice of those who conducted it. The charge given to them by their master was: Speak little, bear much, pray more. The hours of work were three in the morning and two and a half in the afternoon. Books were dispensed with as far as possible, and great use was made of conversation. Lessons were often given in the open air, by the side of a stream, or under the shade of trees. The education of girls was cared for by Angélique Arnauld and Jacqueline Pascal as carefully as Nicole and Lancelot cared for that of the boys. What

a contrast between the direct attack on the mind and intelligence of the pupil made in these schools and the ingenious waste of time practised by the Jesuits. The Jansenists were the best hope that French education ever had, and their success was too much for the jealousy of their rivals. Neither piety, nor wit, nor virtue could save them. In them a light was quenched which would have given a different direction to the education of France and of Europe. No one can visit without emotion the retired cloister which lies hidden among the forests of Versailles, neglected by strangers, scarcely thought of by its neighbors, where the brick dove-cot, the pillars of the church, the trees of the desert, alone remain to speak to us of Pascal, Arnauld, Tillemont, Racine, and the Mère Angélique.

CHAPTER IX.

ROUSSEAU.

Probably no work on the subject of education has produced so much effect as the "Émile" of Rousseau. It appeared in 1762, just one hundred years before the appointment of the Public School Commission, which may be regarded as a new departure in English education. It rapidly made the tour of Europe and was translated into most European languages. It was regarded as the herald of a new age. About that time the accession of Frederick the Great, in 1740, had inaugurated an era in which philosophical theories of social regeneration were at last to be put into practice. The Seven Years' War

was just at an end, and Europe was entering on a period of comparative peace, which was employed in most countries in attempting to remedy the evils of generations of misgovernment by arbitrary legislation. It might well be thought that the world stood at the threshold of a new order. The abuses which afterward resulted in the French Revolution were acknowledged, but it was thought possible to remove them without so violent a convulsion. No wonder that much, far too much, was expected from education. Even Kant, the philosopher of Königsberg, more regular in his habits than the town hall clock, gave up his daily walk and stayed at home to satiate his curiosity in the new gospel of humanity. The effect of Voltaire and Rousseau upon the revolution was very different. Voltaire, by nature a benevolent man, ever ready to sacrifice himself in the defence of innocence or weakness, spent his energies in destructive criticism, and has obtained the reputation of a cold heartlessness which he little deserved. Rousseau, weak, sentimental, and selfish, poured out in his writings that universal philanthropy, that love for the human race and sympathy with its sufferings, which he never showed in any action of his life. Thus his influence was much deeper and has been more lasting than that of Voltaire. "Émile" is not a constructive book. It is difficult to extract from it a definite theory of education, but its insight into the sorrows of childhood and the shortcomings of the age, the enthusiasm which glows in its pages, the beauty of its flowing style, have been most stimulating to thought on educational subjects. Rousseau's views are not entirely original; he belongs to the school of education which I have called Naturalistic. It is easy to trace the sequence of philosophical tradition from

Rabelais and Montaigne to Locke and Rousseau. His similarity in many respects to Locke may have made his influence less felt in England than elsewhere. But he stands astride across the field of education. Nothing comes after him which is not affected by him. He is the progenitor of the educational theories of Kant, Basedow, Pestalozzi and Fröbel.

It will be most convenient to give first an outline of his general principles, and then to proceed to a more detailed examination of his book. It is divided into four main sections. The first deals with the earliest childhood, the second conducts Émile to his twelfth year, the third treats of the period from the twelfth year to the fifteenth, the last terminates with Émile's marriage. Rousseau's first principle is that man is by nature good, therefore the business of education is to remove everything which is likely to stand in the way of the development of the human nature. Therefore education must only be negative. The object of education is not to form a citizen but a man. The poor man requires no education because he is sufficiently educated by the condition of his lot ; on the other hand the rich man must be educated for all the circumstances of life. There are three forces which educate a man : nature, men, and things ; of these only the second is in our power.

The earliest education is physical, and begins immediately after birth. We ought to satisfy all the physical wants of a child because they are natural, and allow no restraint of physical freedom by unnatural compulsion, such as swaddling-clothes or the like. But at the same time we must draw a careful distinction between natural wants and imaginary wants ; those, for instance, of which

the child demands the satisfaction by crying, and which have their foundation in temper. These we must pay no attention to, as they will grow into a habit. In this begins our first attempt at moral education. For this reason it is important to study the speech, gestures, and looks of children.

The second period of childhood begins with speech. We must not begin to think too early of the child's future destination, but to allow the infant to amuse itself with childish games. Suffer the child to gratify its wishes as far as you can, for nature has given it the power of gratifying the wishes which are suitable to its age. The happiness of men upon earth depends upon the equilibrium between will and can. On this also depends his freedom, and freedom is the highest blessing. This is the fundamental principle of education. In order that we may be independent of others our own powers must be properly developed. Yet if we develop these powers either too much or too little we shall make the child wilful. It is best to command as little as possible ; let the child be acted upon by necessity. Let it feel the pressure exercised by things and circumstances. Disobedience is its own avenger, and makes further punishment unnecessary. At this age, during the second period, the most important thing is the training of the senses, but at the same time the awakening of the moral feeling is to be confined within the strictest limits. The first moral idea of which the child is to become conscious is the idea of property, otherwise he may easily contract a tendency to deceit and falsehood. Even in this case, the only punishment which should be employed are the inevitable consequences of the transgression. Try to protect the pupil from evil conse-

quences by removing from him every occasion of committing wrong. External rewards implant the seeds of ambition, and are therefore to be rejected. During this second period instruction is to be confined to what the child can understand, that is, to those things which can be perceived by the senses. Let it take the form of teaching *things*. The fittest subjects for instructions are measuring, drawing, geometry, speaking, and singing. Books are altogether harmful.

We now reach the third period, that is, from the twelfth to the fifteenth year. It is the season of serious work, for which the inborn desire of knowledge gives strength and pleasure. Let the objects of instruction be actions, and employ no moral observations. Let the child's knowledge rest on his own observation, and not on belief in authority. Let him learn industry and mechanical arts, and let each child be taught a manual trade. The fourth period begins at fifteen. Now the passions are awakened. Do not attempt to shroud these questions in mystery. Moral considerations now come into the foreground. The source of all passions is self-love. This is natural, but it easily degenerates into selfishness. Let the pupil become acquainted with the life of society, so as to be able to make a choice of the position which he wishes to hold in it. At any rate, this will give him the knowledge that men seek to deceive themselves and each other. Thus he will learn to despise some, but at the same time to compassionate others. The study of history exhibits men in their true light. With regard to religion he is only to learn the most general facts, and he is not to be educated for any particular sect. His taste is to be developed by the study of literature or by the stage.

Such are the general principles which we find in "Émile." Here, as in Rousseau's other works, we come across the leading idea that nature is of itself good, but has been spoiled by the work of man. God made the country and man made the town. Civilization and the framework of society have been the sources of all the misery of the human race. The only remedy for this mischief is to return once more to nature. The fallacy consists in this, that Rousseau's *nature* never did and never could exist. It is the name of an ideal state of things, a paradise to which it may be that the human race is attaining by slow degrees, but to which it has never yet attained. Now let us follow out these principles more closely in their details. First, children are to be suckled by their mothers; this is a matter of the greatest importance. The mother is the proper nurse, the father the proper teacher, of his child. It is characteristic of Rousseau that, although he rated so highly the duty of a father, he himself, as soon as his children were born, deposited them in the foundling hospital, so that he never knew them or they him. The new-born child is to be perfectly unfettered, he is to have no padded cap or swaddling-clothes; let him crawl about the room as much as he pleases. We must pay attention to the child's cries and tears. Those tears, to which you pay so little heed, are the first signs of the relation of man to his environment. The first tears of a child are entreaties. If you pay no attention to them they will soon become commands. If, as is most probable, the father cannot undertake the education of his child, he must intrust the duty to some one else. What a sacred task is this! A man can only direct the education of one child. He is

to remain with him for five-and-twenty years. Therefore he must be young, even as young as possible. Indeed, it is better that he should be himself a child, that he may become the companion of his pupil, and gain his confidence by partaking of his amusements. Childhood and manhood have not things enough in common to form a very solid attachment at this distance. Children sometimes caress old men, but they never love them.

Émile is an orphan, without father or mother. He is to be brought up by a tutor of this intimate kind alone in the country. Locke advised that children should wear boots with holes in them to let in the water, and accustom the child to wet feet. Émile is to wear no shoes at all, but is to walk barefoot. He is never to use a candle in the dark, but to walk by instinct. He is to have no illness and to need no doctor, for whose art Rousseau expresses the greatest contempt. He is to bathe every day in cold, even in ice-cold water. Four rules are to be observed in the management of very young children. 1. We must allow them the use of everything which has been given them, and which they cannot use to a bad purpose. 2. In all physical matters we must help them, so as to supply their deficiency of knowledge or strength. 3. We must confine the assistance given to them exactly to what is necessary, and pay no attention to mere humors or foolish requests. 4. We must study carefully the speech and signs of children, so that, at an age when they cannot misrepresent themselves, we may distinguish in their wishes between that which springs directly from nature and that which is the result of imagination. We must not be in too great a hurry to make children speak. *It is* best that they should possess only a small vocabulary.

It is a disadvantage when the number of our words exceeds the number of our ideas, when we can express more than we can think. The practical good sense of peasants springs to a great extent from the smallness of their vocabulary. They have fewer ideas but a clearer conception of their meaning.

A child learns, at about the same time, to eat, to speak, to walk alone. Then begins the second period of education. The child must begin to learn to suffer. We must employ no leading strings, walking baskets, or stuffed hats. The child must learn the limits of his nature by enduring the pain of transgressing them. It is by this means that we must teach obedience, not as a moral duty. We must not reason with children of this age. We must remember that they are merely children, and not diminutive men. The first education must be purely negative. It consists not in teaching to distinguish virtue and vice, but in securing the heart from faults and the understanding from error. The educator is to be the passive spectator of the work of nature. His duty is to put the child on the track of discoveries which he is to make by himself. He is to interfere only with a few timid and reserved explanations to assist the pupil in interpreting the lessons of nature. None of the intellectual exercises ordinarily employed for children of this age find favor in Rousseau's eyes. His education is to be concerned with things alone. He forbids the study of languages. At the age of fifteen Émile is only to know one language. If he knew more he would have to compare ideas of which he is incapable. Maps of unknown countries have no real meaning for a child of this age. History is also proscribed, for the child cannot understand the relations of

historical events. The whole of literature is banished from the curriculum. Émile, at twelve years of age, is scarcely to know what a book is. His whole education is to be physical. He is to be strong and healthy in order that he may become wise and sensible. He should be in constant motion. His clothes must be loose to allow for the growth of his body. He is to wear little or nothing on his head. He is to drink cold water when he is hot. He is allowed a good spell of sleep, because he needs it. He is to be as much at home in the water as on land. The faculties to be educated at this period are the senses. Let him learn to measure, number, weigh, and compare. In this Rousseau was in advance of his age. Basedow, and Pestalozzi, and most of the moderns, are agreed that the senses cannot be properly developed without education. We cannot learn how to touch, see, or hear without having been taught.

This kind of education has brought Émile to be twelve years old. Let us see to what point of development he has arrived. His bearing is full of confidence, his nature is free and open, but not overbearing or conceited, his speech is simple and always to the purpose, his ideas are limited but distinct, he knows nothing by heart but much by experience. The only book he has studied is the book of nature. His memory is not so good as his judgment, he knows only one language, but understands what he says. He is not the slave of routine or custom, to-day is not the same as yesterday. He cares nothing for authority or example, he does and says what pleases him. His ideas are suitable to his age. Order him to do anything, he will not understand you ; ask him to gratify *you and* he will hasten to do what you wish. He knows

the limit of his powers, so that he never undertakes anything which he cannot do. He has an observing, penetrating eye. He never asks useless questions, but finds out things for himself. He knows no difference between work and play ; they are both alike to him. He is first-rate in running, jumping, and judging distances. His talents and experience fit him to lead his companions. He takes the lead of others without wishing to command ; they obey him without remarking it. He has lived the life of a child. He has attained completeness without sacrificing his happiness. Should death carry him off at this age we shall not have at the same time to bewail his life and his death. We shall be able to say, " He has not, by our fault, lost anything which Nature had given him."

The interval between twelve and fifteen is to be devoted to positive instruction. The turmoil of the passions begins to threaten us. We must endeavor to turn aside their effects by labor of the mind. Rousseau recognizes the fact that no time must now be lost, but he does not excuse himself for having lost so much already. The instruction which he contemplates is not a very extended one. In the dispute, which is always renewed, as to whether education should be extensive or intensive, whether it should aim at imparting much of one thing or something of many, Rousseau declares himself on the intensive side. Teach a little, and that little well. But this teaching is to proceed as far as possible by the way of nature, and is to be conducted as far as may be without books. " I hate books," Rousseau cries ; " they only teach people to talk about what they do not understand. We must rely on the child's natural thirst for knowledge.

The world of intellect is as yet unknown to the child, his thoughts do not reach farther than his eyes, his understanding only extends as far as the space that he can measure. In the first activity of the intellect the senses must be the guides. The child's book is the world, and facts are the objects of instruction. Direct the attention of your pupil to the appearances of nature, and he will soon begin to desire knowledge, but if you wish to stimulate that desire you must not be too ready to satisfy it. Ask your pupil questions which are at the level of his comprehension, and let him answer them by himself. Then if he comes to possess knowledge it will not be because you had put it in his mind, but because he has won it by himself. Let him not learn science, let him find it out by himself. If you allow authority to take the place of reason in his eyes, he will never use reason, he will only be the plaything of other people's views.

Using such methods as these, which are singularly in accordance with the best means of teaching employed in our own day, as they have been popularized by Pestalozzi and Fröbel, Rousseau advises us to teach our pupil geometry, astronomy, geography, and physics. Astronomy is to be taught by observation of the heavens, and geometry in the same manner. Émile receives practical instruction in geography by having to find his way home from the centre of a thick forest at dinner time. He is made to interest himself in physics by the movements of an artificial duck swimming in a basin of water at a fair. Chemistry is taught him by the comparison of bad and good wine. Thus far we have been able to dispense with books. "But," says Rousseau, "if you must absolutely have books, there is one which furnishes in my opinion the

most happy treatise of natural education. This book will be the first which my Émile will read. It alone will form for a long time the whole of his library, and it shall always hold in it a distinguished place. It shall be the text to which all our conversation on natural science shall serve us as a commentary. It shall during our progress serve as a proof of the condition of our judgment, and as long as our taste remains unspoiled, the reading of it will always be pleasing to us. What then is this wonderful book? Is it Aristotle, is it Pliny, is it Buffon? No, it is Robinson Crusoe. Robinson Crusoe on his island, deprived of the assistance of his fellow-men and of the instruments necessary for all the arts, but nevertheless providing for his subsistence and even procuring some degree of comfort, this is an interesting object for every age, and which can be made pleasing to children in a thousand ways."

The reading of Robinson Crusoe is to impress Émile with the dignity of labor, and of the various occupations of mankind. Also the knowledge of a trade is to provide a shelter for him in time of need, when a revolution destroys his ordinary resources. "We are approaching," Rousseau says, "the era of revolutions, who can say what will then become of you? Everything which men have made men can also destroy; the only ineffaceable characters are those impressed by nature, and nature makes neither princes, nor rich men, nor great lords. What then in this time of abasement will become of the satrap whom you have brought up for greatness alone? What in this state of poverty will become of this *publican* who cannot live except on gold? Happy is the man who can surrender the position which deserts him, and can remain a man in spite of fortune." Rousseau adds that in his

opinion the great monarchies of Europe have but a little time to last.

How are we to classify these occupations? The most respectable of all is agriculture, next is the trade of the blacksmith, next carpentry, and so on. Labor is a sacred duty for men in societies. Rich or poor, powerful or weak, every idle citizen is worthless. Familiarity with labor will also have the advantage of diminishing the prejudice of the rich toward the poor. Still it is difficult to find a suitable trade. Émile is not to be a weaver or a stone-mason, which are stupid trades; nor a bricklayer or shoemaker, which are dirty occupations; nor a hairdresser, who is the slave of civilization. He is not to be a lockmaker, but a carpenter. With this ends the third period of education. Émile has but little knowledge, but it is all his own; he knows nothing by halves. The most important thing is that there is much of which he knows nothing. He has an open, intelligent, teachable mind. He does not even know the name of history, nor what metaphysics and morality mean. He knows the essential relations between men and things, but nothing of the moral relations between man and man. He is laborious, temperate, patient, firm, full of courage. His imagination never exaggerates dangers. He knows what death is, and when he must die he will die without a struggle and without a groan. He has all the virtues which have reference to himself. It is only the social virtues in which he is deficient. Thus far he has lived content, happy, and free as far as nature has permitted it.

From the period of fifteen to twenty, Émile is to become the most tender, the most sentimental, the most *religious* of mankind. In his case there are special diffi-

culties. He has neither relations nor friends ; he has no idea of love. Most people would say that a child should be taught to love from the very first. Rousseau allows Émile to grow up with a chasm in his heart. "Here begins the real education." The birth of the passions comes in to help us, but they must be kept under proper control. It is the quintessence of wisdom to know how to do this, and we must try above all to teach two things : 1. The true relations existing among men, not only in the race but in individuals. 2. The regulation of all the affections of the soul according to the circumstances of their relations. The following maxims will help us : 1. The human heart is not naturally disposed to place itself in the position of those persons who are happier than ourselves, but only in the place of those who are more miserable. It follows from this, that to instruct a young man in the principles of humanity we ought not to make him admire the brilliant lot of others, but show him by the dark side what he has to fear. It will then follow that he will make a road to happiness for himself, and will take his own line and not follow any one else. 2. A man only pities in the case of others those evils from which he does not believe himself to be exempt. So do not accustom your pupil to gaze at the sufferings of the unfortunate and the labors of the poor from the height of his own glory, and do not expect to teach him to be sorry for the poor if he considers them as strangers to himself. Make him understand that the lot of these unhappy people may perhaps be his own, that all their evils are under his feet, and that a thousand unforeseen and inevitable events may plunge him into them from one moment to another. 3. The third maxim is, "The pity which we feel for the

misfortunes of another is not measured by the quantity of the evil, but by the tenderness we feel for those who suffer it." It is natural that a man should lay very little stress on the happiness of those whom he despises. Teach your pupil to love all men, even those who despise humanity. Manage so that he places himself in no class, but discovers his relations with all. Speak in his presence with emotion, and even with compassion, of the human race, but never with contempt. As a man yourself, take care not to dishonor the class to which you belong.

By these and similar ways you will penetrate into the heart of the young man, to work out of it the first motions of nature, and to take care that it shall unfold itself and beat for its fellow-men. Yet be on your guard against mingling personal interest with these emotions; and, above all, keep at a distance all vanity, emulation, and love of praise, all those feelings which compel us to compare ourselves with others. The cause of all our passions, the only one which is born with a man, and which never leaves him during life, is self-love. It is the original inborn passion which precedes all others, of which all the rest are modifications. Self-love is good if it is subordinate to order. Each man must naturally take the greatest interest in its maintenance. We must love ourselves above everything, and, as the immediate consequence of this feeling, we love everything which serves for our preservation. We seek what is useful to us, but we love the man who is useful to us; we avoid what does us harm, but we hate him who does us harm. Émile has up to the present moment thought only of himself. When he first looks at his neighbor he will compare himself with him, and this comparison will make him desire

to take the first place. At this point self-love is changed into selfishness, and all the passions connected with it appear in germ. In order to combat these evils, develop before Émile the picture of society as a whole. Let him learn that man is good by nature, but that society spoils him. Let him find in men's prejudices the source of all their faults. Let him never scorn individuals, but let him despise the multitude. Let him learn that nearly all men wear the same mask, but that there are faces more beautiful than the masks which cover them. This knowledge of men is best learned from history, for we must see men in action. In life we only hear them speak, for they disclose their speech, but conceal their actions. In history the veil is drawn away, and we judge men by their deeds. Yet the most dangerous writers of history for the young are those who pronounce judgments. Let the young man learn the facts and judge for himself. In this way he will learn how to understand men. That your pupil may not believe that he is better than others, let him be shown how he is subject to the same weaknesses and follies as the men for whom he feels compassion.

Rousseau next goes on to say that many will have wondered why he has allowed the whole of the early life of his pupil to pass without speaking to him of religion. At the age of fifteen he did not know that he had a soul; perhaps even at eighteen it is too soon for him to learn it, for if he learns it before the proper time there is a danger that he will never know it. But as religion is the regulator of the passions, we ought now to instruct him in it. To what sect then shall we lead the child of nature? We will not make him join any sect in particular, but we will place him in the position to choose that

one to which the best use of his reason must lead him. This latest period of Émile's education is to be devoted to reading and the acquirement of taste. He is to study history and eloquence, and to frequent the theatre. He is to make up for lost time in the study of books.

The education of Émile, the ideal man, is followed by that of Sophie, the ideal woman. But Rousseau does not conceive that the woman is educated for any other purpose than to be suited to the man. He says, "All the education of women ought to be relative to men. To please them, to be useful to them, to make themselves loved by them, to bring them up when they are little, to care for them when they are grown up, to counsel them, to console them, to render their lives agreeable and pleasant—such have been the duties of women in all time." If we do not accede to this principle we shall not go straight to our point. Sophie is to learn religion from her mother. She is to pay special attention to the duties of housekeeping, but in all this she is to be charming. She is to practise lace-making because she looks pretty while she is doing it; she is to let the dinner fall into the fire rather than stain her apron or her cuffs. Émile meets Sophie, falls in love with her, and, after two years spent in travelling, returns and marries her.

We shall see something of the influence of Émile in future chapters. Rousseau tried to answer cant by paradox. He violently opposed the current practices of his day in education by sketching out a scheme equally full of contradictions, and equally unsatisfactory in results.

CHAPTER X.

PESTALOZZI.

JOHN HENRY PESTALOZZI was born on January 12, 1746. His father died when he was five years old. "I grew up," he said, "by the side of the best of mothers—as a mother's child. Year after year I never came out from behind the stove. In short, all means and stimulus for the development of manly strength, manly experience, manly ways of thinking, and manly practice were wanting to me just in proportion as I needed them by the peculiarity and weakness of my individual character. I saw the world only in the narrow confinement of my mother's chamber, and in the equally great confinement of my life in the schoolroom; the real life of men was as strange to me as if I did not live in the world in which I dwelt. In all games I was the most awkward and most helpless of all my schoolmates, and yet I wished to excel in them above the rest. That often gave them occasion to laugh at me. One of them gave me the nickname 'Wonderful Harry from fool's town.' Most of them were pleased with my good temper and serviceableness, but they knew my one-sidedness and want of skill, and my thoughtlessness in everything which did not interest me much." He complains that his teaching was too much occupied with words and fancies. "That went so far," he says, "that we imagined in our boyish days that we could prepare ourselves by the superficial school knowledge of the life of Greek and Roman citizens for the restricted life of citizens in a Swiss canton. When Rousseau's 'Émile'

appeared, my very unpractical imagination was seized by this very unpractical book. I compared the education which I received in the corner of my mother's chamber and in the school with that which Rousseau demanded for the education of his Émile. Home education and the public education of all classes seemed to me to be a crippled existence, which could be cured of the misery of its real position by the lofty ideas of Rousseau. Rousseau's ideas of freedom awakened in me a desire to serve the people with greater earnestness. I determined to give up the career of a clergyman and to study law, which might open to me a sphere of greater usefulness to my country." A friend of Pestalozzi's, by name Bluntschli, dying at this time, sent for him on his death-bed, and said to him, "I am dying and you will be left alone. Take care to throw yourself into no line of life which may be dangerous to you from your good nature and overconfidence. Look out for a quiet way of life, and undertake no adventure unless you have by your side a cool-headed man who knows men and things, and on whom you may depend."

Never was advice more urgently needed. Shortly after this Pestalozzi fell ill; on his recovery he put away his books and determined to devote himself to an agricultural life. In the north of Switzerland, not far from the town of Brugg and the castle of Hapsburg, he purchased some acres of barren land which he called Neuhof. He built a house in the Italian style better than he could afford. Here he married in 1769. The money necessary for the farm was advanced by a Zürich house of business. But the plan entirely failed. In Pestalozzi's words, the dream of his life, the hope of an important and beneficent

sphere of labor, which was centred in a quiet, peaceful domestic circle, had entirely disappeared ; but his spirit was in no way broken. Assisted by his noble-hearted wife he established an institute for the poor, to which children were sent from Zürich, Berne, and Bâle. He soon had fifty children to look after, chiefly homeless wastrels. His idea was to employ them in summer with field work, in winter with spinning and other handicrafts. He also attempted to teach them, and laid great stress on their practice in speaking ; but this plan also failed. The children were unaccustomed to discipline, and came to no good, and sometimes ran away as soon as they had received new clothes. Pestalozzi preferred to share his last crust with his children rather than give the institute up. He "lived like a beggar to teach beggars how men live." At last money, bread, wood, and everything failed, and the scheme had to be surrendered. His friends believed that it was all over with him, and that they could not help him any more. With his beggar's staff in his hand, and with no human assistance left for him in the world, he determined in himself, "I will be a schoolmaster." He devoted himself to raising others from the abyss into which he had himself fallen. His wife stood by him in his trouble. He sought refuge with Iselin, a Swiss writer of some reputation. He came to his house without shoes, having given the silver buckles to a beggar on the way.

Pestalozzi's first work was published in Iselin's "Ephemerides." It was called "Die Abendstünden eines Einsiedlers" ("The Evening Hours of a Recluse"). It consists of a series of detached thoughts on the principles of education. It is the first sketch of the edifice to

the erection of which Pestalozzi devoted his life. Education in the family, love as the sun of the house, are the necessary conditions of all success in education. Knowledge of things and complete serviceableness in the affairs of life, the absence of mere swallowing of words, childish innocence and belief in God as the most penetrating influence in the life of men and as the Alpha and Omega of education—such are the main principles on which he insists. A year later Pestalozzi wrote another work, which speedily became known through the whole of Europe. The Economical Society of Berne gave him their gold medal, Bonstetten invited him to come and work as a minister, Count Zinzendorf the Moravian asked him to Vienna, Leopold, Grand Duke of Tuscany, begged him to come and stay with him in Florence. Such in those days was the enthusiasm for new ideas among the rulers of the world. The name of this new work was "Leonard and Gertrude—a book for the people." Pestalozzi wrote it in a few weeks, without knowing, as he says, what he was doing. "I felt its value, but only like a man who feels the worth of happiness in sleep." The object of the book was to bring about a better education for the people, arising out of their true position and their natural circumstances. "This book," he says, "was my first word to the heart of the poor and forsaken in the land. It was my first word to the mothers of the country, and to the heart that God gave them to be to their families what no man on earth can be in their place." Education begins, as in the scheme of Rousseau, with the cradle. Gertrude, the wife of the good-natured but weak-minded Leonard, is the pattern of all *mothers*. Pestalozzi describes how she manages her

home, brings up and educates her children. He wishes above everything to instil necessary knowledge into children by good elementary education. If this could only begin properly and go on properly, an entirely new race would grow up, independent in character, full of insight and cleverness. A people thus educated would be able to hold its own against oppressors. But elementary teachers were wanting who both could and would educate in this way. There were no seminaries or normal schools where such children could be educated. Therefore, Pestalozzi said, "I will put the education of the people into the hands of the mothers. I will transplant it from the school to the house." But how can a mother teach what she does not understand? Pestalozzi tried to supply this want of knowledge and experience. A mother who follows exactly the principles of his book could educate her children as well as if she were the possessor of all the sciences.

After the appearance of "Leonard and Gertrude," Pestalozzi spent seventeen more years in Neuhof, making thirty years in all. He wrote several books and founded a weekly paper called the "Schweizer Blatt." At one time he joined the order of the Illuminati, but soon left them, because he found that they could not be trusted to fulfil their promises. But these were troubled times in Europe. By the year 1798 the French Revolution had produced serious results in Switzerland. An Helvetic Republic had been formed, governed by five directors, one of whom was Legrand, a friend of Pestalozzi's. He was an old man of eighty, full of enthusiasm for the improvement of the people, and he had been at one time a friend and a co-operator of Oberlin. Pestalozzi attached

himself with eagerness to the new doctrines. He determined to be a schoolmaster, and was on the point of setting up an establishment in Aargau ; but on September 9. 1798, Stanz, a town on the Lake of Lucerne, was burned by the French. The whole canton of Unterwalden was laid waste, and a number of destitute orphans wandered about with no roof over their heads. Pestalozzi was sent by the Directory to be a father to these orphans. He went, accompanied by a housekeeper. In the convent of St. Ursula he collected eighty beggar children from four to ten years of age. The account he gives of their condition is terrible. Some were wasted with disease, some were full of mistrust, others of overboldness, others crushed by their misfortunes ; a few children of tenderer nurture shrunk from contact with their rough companions. There was little ground to work upon, either of mind or body. They were very ignorant : scarcely one in ten knew the alphabet. Pestalozzi tried to combine learning with handiwork. He set children to teach children, according to the method afterward introduced by Bell and Lancaster. He had to bring discipline to bear upon this untutored mass. He saw that it was necessary to imitate the advantages which domestic education has over public education. By the proper employment of love he saw the condition of the children alter "as winter is changed to spring by the action of the sun." He was in the midst of his charge from morning till night. "Every assistance," he says, "everything done for them in their need, all the teaching that they received, came directly from me ; my hand lay on their hand, my eye rested on their eye. My tears *flowed* with theirs, and my smile accompanied theirs.

Their food was mine, and their drink was mine. I had nothing, no housekeeping, no friends, no servants ; I had them alone. I slept in their midst ; I was the last to go to bed at evening, and the first to rise in the morning. I prayed with them, and taught them in bed before they went to sleep." Having thus gained an influence over them, he tried to develop the germ of their better feelings. He found however that he could not rely on words alone, but was obliged to use corporal punishment. "My aim was," he says, "to carry the simplifying of all means of teaching so far that every common man can easily bring himself to teach his children, and to make the school gradually superfluous for the first elements. I wished to bring to perfection the smallest thing that the children learned, to go back in nothing, so that they should never forget one word that they had learned, or write badly one letter that they had written well." In this school Pestalozzi himself acquired that intimate knowledge of children's nature which no man ever possessed to a larger extent.

This work was suddenly interrupted. In 1799 the French came back again and changed the buildings of the convent at Stanz into a military hospital. Pestalozzi went away and refreshed himself on the hills of Gurnigel after the wearisome toil with which he had tended his beggar children during nine months. He still longed for the work of a teacher. He took a post in the school at Burgdorf near Berne, and applied to the teaching of the lower classes the principles he had learned at Stanz. He stayed here rather less than a year, and then, with the help of three friends, set up an establishment in the old castle of Burgdorf, to which a number of poor Appenzell

boys came as pupils, among them two who were afterward celebrated, Ramsauer and Egger. There were no books, no appliances of education; the old tapestry of the castle was made use of for object lessons. Here on January 1, 1801, Pestalozzi began a new book, "Wie Gertrud ihre Kinder lehrt" ("How Gertrude teaches her children"). In this book he tries to solve the following problem: "What would you do if you wished to give a single child the whole cycle of those acquirements and practical powers which it has need of so that it may by a careful use of its opportunities become at unity with itself?" or, in other words, What knowledge and practical powers are necessary for children, and how are they to be imparted? The beginning of all knowledge is observation, the goal of it is clear comprehension. Pestalozzi says that the greatest service he has rendered to education is the recognition of observation, of the power of the senses, as the foundation of instruction.

Let us read a description of the school at Burgdorf given by Ramsauer, one of Pestalozzi's most distinguished pupils: "All instruction was based on speech, number, and form. There was no regular plan of studies, no fixed hours, but the same thing was generally taught for two or three hours together. We were about sixty boys and girls, from the ages of eight to fifteen, and were taught from eight to eleven in the forenoon, and from two to four in the afternoon. All teaching was confined to drawing, summing, and speaking. We did not either read or write, as we had no books for either purpose. We learned nothing by heart. For drawing we had no copies, only red chalk and boards, and while Pestalozzi *repeated to* us sentences out of natural history we drew

whatever we pleased. Pestalozzi never saw what we were drawing; our clothes were covered with red chalk. In arithmetic the method was good, but there was little examination. Pestalozzi was too impatient with us to make us repeat or to ask us questions, and he was in such a hurry that he did not seem to care about individual children. His object lessons were good, but he had little method in them. He spoke loud and indistinctly, and did not wait for an answer. He made himself quite hoarse with shouting. The lessons began at eight and lasted till eleven, when, hearing the other children in the streets, we all ran away without taking leave. Although Pestalozzi objected on principle to corporal punishment, he gave us every now and then boxes on the ear right and left. The children teased him very much. I pitied him and kept quiet, so that he was very kind to me. The first time I came into Pestalozzi's school he kissed me and greeted me with heartiness, then he showed me a place, and did not speak to me any more the whole forenoon, but went on talking continually without stopping. As I understood nothing of it at all except "Ape," "Ape" at the end of each sentence, and as Pestalozzi was very ugly in appearance, with no necktie, without a coat, in long shirt-sleeves which hung down over his loosely waving arms and hands as he ran about like a madman in the room, I felt really terrified, and I could easily have believed that he was himself an ape. And I was so much the more afraid of him in the first days because he had given me a kiss on my arrival with his strong prickly beard, the first that to my knowledge I had ever received in my life." Nothing could exceed the devotion of Ramsauer to his master. This picture

has been given not as a set-off against Pestalozzi's gifts as a teacher, but as a living portrait of the man, and as an argument that great effects may be produced by love and insight even when accompanied by remarkable eccentricity of manner.

In 1802 Pestalozzi was chosen to go to Paris as a deputy to meet the First Consul Napoleon. He was treated by him with indifference, and did not succeed in interesting him in his schemes. On his return he was established by the government of Berne at the monastery of Buchsee, but when that was placed under the direction of Fellenberg he left it and went to Yverdun, where he established an European reputation. This little town became a place of pilgrimage for philanthropists from all parts of Europe. Some of the most famous school reformers in Germany came from Switzerland. In 1809 Pestalozzi had under him fifteen teachers and 165 pupils from all parts of Europe and America, and thirty-two grown-up teachers to learn the method. Perhaps the best part of the method was the closeness of the family life. Teachers and scholars slept and ate together, living entirely in common under circumstances of great difficulty. After 1810 the prosperity of the establishment began to decline, chiefly through disagreement among the teachers. It was found that the school did not fit the pupils for the life which they were expected to lead. Pestalozzi hoped to transplant the school once more to Neuhof, but it was found impossible. In 1825 he was obliged to give it up, and withdrew at the age of eighty to his original home of Neuhof, where his grandchildren lived. Here he wrote the "Schwanengesang," his parting song, in which he gave to the world a sketch of his

life, and unfolded his last principles of education. He died on February 17, 1827. His last words were, "I forgive my enemies; may they find peace as I am going to everlasting peace. I would willingly have lived a month longer for my last works, but I thank the Providence which calls me away from the life of this world. And you, my children, remain quietly by yourselves and seek your happiness in the peaceful circle of home life."

We have now to consider what were Pestalozzi's principles of education. They were founded entirely on the following of nature. The end of education he considered to be the harmonious development of all the natural powers. If we provide for this harmonious development we shall have given the education which we desire. There is a certain order determined for us which our development should follow, there are certain laws which it should observe, there are impulses and tendencies implanted in us which cannot be extinguished or subdued. The natural course of our development comes from these impulses. A man wishes to do everything which he feels himself strong enough to do, and in virtue of this indwelling impulse he wills to do this. The feeling of this inward strength is the expression of the everlasting, inextinguishable, unalterable laws which lie at the bottom of a man's nature. These laws are different for different individuals, but they have a certain harmony and continuity for the human race. Now that alone can be considered of educative power for a man which grapples with all the faculties of his nature—with heart, mind, and hand. On the other hand, any one-sided influence which deals only with one of these faculties by itself, undermines and destroys the equilibrium of our forces, and

leads to an education which is contrary to nature. If we wish to raise and ennoble ourselves we must accept as the true foundation for this effort the unity of all our human powers. What God has joined together let not man put asunder.

Pestalozzi tells us that for a long time he strove to find the means by which a man may make clear and intelligible to himself the objects which come before his eyes. He came to these conclusions. He will direct himself to three points of view : (1) how many objects move before his eyes, and of how many kinds ; (2) how they look, what is their form and outline ; (3) what are they called, how may they present themselves to us, by a sound or word. Now a man who has passed through these stages has acquired three powers : (1) the power to represent dissimilar objects according to their form and according to their contents ; (2) the power to separate these objects according to their number, and to represent them as one or many ; (3) the power to increase the vividness of the representation of an object, already marked by form and number, by means of speech, and so to render it impossible to forget. Therefore, the elementary means of instruction are three—number, form, and speech. Let us proceed a little further. The first means of teaching is by sound. This may be divided into three kinds : (1) tone-lore, the forming of the organs of speech to pronounce different sounds ; (2) word-lore, the means of knowing individual objects by specially assigned names ; and (3) speech-lore, the means by which we exactly express ourselves about objects known to us, and about everything which we know about them. Tone-lore is of two kinds—speaking-tone and singing-tone. Word-lore

consists of lists of names of the most important objects from all the natural kingdoms, and of the vocations and relations of mankind in the world. These lists of words must be given to the child to learn so soon as he has fin ished his A B C. In speech-lore the great object to aim at is exactness of expression, so as to be able carefully to distinguish different objects from each other. When these first foundations have been laid, we can apply them to the most important objects of human inquiry —to the description of the world, to history, to nature. The second means of instruction is form. This is to be taught by observation ; and in the knowledge of form we have three degrees, obtained by measuring, drawing, and writing. What Pestalozzi calls measuring is really geometrical drawing, which holds an important place among modern methods of instruction. It begins with the divisions of the square and goes on to those of the circle. At first the child is not to draw himself, but merely to follow, and to understand the measurement of the divisions. Drawing by the pupil is to come later, when the child has been taught to understand and to practise the simplest notions of geometry ; then he is to proceed to writing. Writing is to be taught very gradually, first parts of letters, then single letters, then complexes of letters formed into words. The third branch of elementary teaching is number. It has this advantage. Sound and form may sometimes be inaccurate and lead to misconception, but number never can do this. The results it leads to are always certain and unassailable, and therefore it is one of the most important means of education. Reckoning, in its simplest form, is the putting together or the separation of unities: one and one makes two, one from

mainly on physiological knowledge. The three philosophers whose names stand at the head of this chapter approached the science of education through the study of psychology. With Kant and Fichte it formed but a minor and subordinate part of their investigations, with Herbart it was the main object of inquiry. To him the chief use of philosophical speculation was to frame a right theory of education. Kant wrote no special treatise on education. He lectured at the University of Königsberg on pedagogics, as on many other subjects; and notes of these lectures were published by one of his pupils just before his death. These have been republished in connected form, enlarged by selections from other parts of his works. We will attempt to give an account of his views as methodical as possible, considering the fragmentary manner in which they are presented to us.

Man is the only being that needs education. By education we mean nurture, discipline, and instruction. None of these are required in the same degree by animals. Only by education can man become a man. He is nothing but what education makes of him. It is a misfortune that men are often educated by people worse than themselves. If a being of a higher order could educate us we should reach a much greater perfection. We should learn a great deal if experiments were made in education. It is strange how little interest men take in these matters, for every one can see how he has been neglected in his youth. If we believe in the perfectibility of human nature, then education must fill us with bright hopes. Each generation will be better than the last, until mankind reaches a standard which it could not have anticipated or

imagined. In man lie the germs of various capacities. These we must try to develop in due harmony and proportion, that each man may obtain the perfection of which he is capable. Yet we must grasp the truth that the complete attainment of destined perfection is not for the individual, but for the race. Education is an art which must be brought to perfection by the practice of many generations. Each generation can profit by the experience of its predecessors. Education may be either mechanical (or empirical)—that is, without plan, merely following circumstances, or judicious (scientific). Scientific education is far preferable to the other. One most important principle of education is that children should not be educated for their present condition, but for the future of the human race, which may possibly be better. They must be educated in accordance with the idea of humanity and its destination as a whole. Notwithstanding the great importance of this principle, neither princes nor parents are anxious to bring about this result. Parents look merely to present advantages, princes to the convenience of their government. Therefore schools ought not to be left to them, but placed under the guidance of the most enlightened experts. Schools of experiment for trying new methods of education are even more important than normal schools for the training of teachers. Education is above everything an experimental science.

Education must include various elements. From one point of view it will comprise—1, discipline ; and 2, culture, discipline being the taming of the wild nature, culture comprising both instruction and the formation of the mind ; 3, civilization, to make a man fit for the society

of his fellow men ; and 4, morality, to make men good. Again, education may be either public or private. The former is preferable. Children brought up at home will first learn and then propagate the faults of their parents. The great problem of both these forms of education is how to combine compulsion with liberty. Again, education may be either physical or practical. The first is concerned with that which men have in common with animals ; practical education fits a man for life. This may be divided into three parts : 1, the scholastic—mechanic, or purely didactic ; 2, the pragmatic, to teach prudence in affairs ; 3, the moral, to teach virtue. They follow each other in the order here given. With regard to early physical education Kant agrees in the main with the advice of Locke and Rousseau. He objects to mechanical aids for children, leading-strings, and the like. He says that we ruin our natural capacities by the use of instruments : we use a rule when we might measure by the eye, a watch when we might tell the time by the sun, a compass when the stars ought to give us direction. We ought to cultivate a child's natural faculties as soon as possible. Kant is here in close agreement with Pestalozzi and Fröbel. To pass to the cultivation of the spirit—this is of two kinds : 1, physical or practical ; 2, pragmatic or moral. The physical education of the spirit is either free or scholastic. The free cultivation is provided for by games, the scholastic by work. There are many who think that everything can be taught in playing. Men are by nature lazy, and they must be taught to work. Work is not agreeable in itself, but it conduces to an end outside itself ; games, on the other hand, are agreeable, and are an end in themselves. Man is the only animal that is

obliged to labor ; he requires all kinds of things, which can only be provided by toil and hard work. The necessity of work is the great blessing of our lot. If Adam and Eve had remained in Paradise they would soon have got tired of it. A child must not be taught to look on everything as play. Even if he does not see the use of the work, he will get a great deal of good by it. In the cultivation of the spirit we must develop the higher qualities first, the lower only in reference to them ; for instance, the will and the imagination as subordinate to the understanding. Memory has little value by itself. It is like a pack-horse, fit to carry materials while others build. Understanding is the knowledge of the universal, judgment is the application of the general to the particular. Some things can only be learned by memory. History is not one of them. The main use of it is to practise the understanding in pronouncing judgments.

In teaching children we should try gradually to join together "know and can," knowledge with practical power. Of all sciences mathematics is the best for this purpose. We should also join together knowledge and speech. This is done by teaching eloquence and fluency. But the child must learn to distinguish knowing from thinking or believing. By this means we shall form a right understanding and a right if not a refined or delicate taste.

Moral training depends not on discipline but on maxims. All is spoiled if we base it on threats or punishments. Children must accustom themselves to act according to certain rules. If a child tells a lie, do not punish him, treat him with contempt ; tell him that he will not be believed in future. If you punish a child when he does ill, and reward him when he does well, he acts not

for the good or the evil, but for the reward. Morality is something so holy and so elevated that we must not throw it away and place it in the same rank with discipline. The first duty of moral education is to form the character, and character consists in a readiness to act according to maxims. Maxims are subjective laws springing from the understanding of men. If you wish your children to have character, they must be accustomed to act by rule. Men who do not act by rules cannot be depended upon.

The most important thing for a child's character, especially a school child's, is obedience. This is twofold: referring either to the absolute, or to the sensible and well-understood will of a teacher. Absolute obedience comes from compulsion, relative from free-will and confidence. This last is much the best. Still children must in some general matters show an absolute obedience. The teacher must exhibit no preference. Children should be encouraged to act from inclination, but they must sometimes be made to act from duty. Men have to perform duties in after life, and they must be induced to begin when young. Punishments are of two kinds—physical and moral. Moral punishment is inflicted where we act on a child's natural desire for love and affection, when we refuse to speak to him and treat him with contempt. Physical punishment consists either in denying him what he wants, or giving him what he does not want. Punishment should always be accompanied with an exhibition of moral feeling. It should not be simply mechanical, or it will fail in its effect. Truthfulness is the chief point in the foundation of a good character, but it cannot be secured by punishment. You must make a child ashamed *of telling* a lie. Contempt is the only fitting punishment

for this offence. Sociability is important for children. They should be taught to be friendly with each other, and not to be too much alone by themselves. Teachers often neglect this. Children should be prepared for the sweetest enjoyments of life. They should be open and as cheerful in their look as the sun. If they are happy they stand the best chance of being good. Many think that the years of childhood are the best and most pleasant of a man's life. This is not so. They are years of trouble, because children are under discipline ; they often have no friends and no freedom.

Kant has some excellent remarks upon the methods of teaching. Rules and examples should go together, the rules slightly preceding. The powers of the mind are best cultivated when we do things for ourselves ; for instance, when we apply rules of grammar which we have learned, as when we make a map for ourselves. Self-taught men learn best, but few are capable of this. To educate the reason we must proceed after the manner of Socrates. He called himself the midwife of the mind. We must help the reason to come to birth. For this purpose we must use the method of question and answer. It is slow, but efficacious. Kant, in his treatise on logic, classifies the methods of teaching under three heads : 1, acroamatic, where the professor simply teaches ; 2, erotetic, where both pupil and teacher ask questions ; 3, catechetical, where the teacher alone asks questions. It is the second of these which Kant prefers.

The last quality which a man acquires is knowledge of the world, and it only stands second in value to morality. It consists in concealing yourself and seeing through others. For the first we must use propriety of behavior,

and that is a useful possession ; also dissimulation is useful, that is, the concealment of our faults, but it is only allowable in certain cases. Knowledge of the world concerns the temperament, but morality is part of the character. *Sustine et abstine:* bear and forbear. The first step is to subdue the passions. We must encourage sympathy in children, but not over-sensibility, as it makes them weak in character. A good motto for the conduct of the character is *festina lente:* without rest, without haste. We must also impress upon children the duties they have to fulfil as far as possible by example. These duties are of two kinds—those of a man toward himself and those toward others. The duties of a child toward himself are cleanliness, purity, sobriety, and the most important safeguard of all is the possession of a certain self-respect which he values beyond everything else. A man's duty toward himself is often neglected in comparison with his duty toward others, but in critical moments it is the only thing that will keep him straight. If it is asked whether man is by nature morally good or bad we must reply, neither the one nor the other ; for by nature man is not a moral being at all. He only becomes such when his reason is raised to the comprehension of notions of duty and law. On the other hand, it may be said that he has within himself temptations to every kind of evil, impulses, and instincts which entice him, although his reason urges him in the opposite direction. He can only become morally good through virtue—that is, through self-command. The laws of social duty should be carefully taught to children ; it is more important that they should act from an idea of duty than from a tender or compassionate heart.

It is a great question how soon we ought to teach children religion. It would be an advantage if we could lead children up gradually from the contemplation of nature to the idea of God. But this is impossible. If they are not taught about God from you they will hear of Him from others. We must content ourselves with securing that religion is not mere imitation. The idea of God is best taught by the analogy of a father; we shall then be able to regard mankind as a family. What is religion? It may be defined as the law within us in so far as it influences us through a lawgiver and a judge; it is morality applied to the knowledge of God. Religion is nothing without morality. Teach a child at first nothing of theology. Religion based upon theology can never contain any moral element. Morality must come first, theology will follow. A child must fear God—1, as the Lord of life and of the whole world; 2, as the Provider for men; 3, as the Judge of mankind. Kant concludes with a solemn warning as to the great care which must be taken of a youth just at the time when he is becoming a man. This should be read and meditated on by all who have the care of instruction in their hands.

The educational theories of Fichte could not be fully explained without a more complete exposition of his general system of philosophy than our present purpose admits of. Indeed, he can hardly be said to have formulated a definite theory of teaching, and the attempts made by his pupils to carry his precepts into effect led them far astray from the dogmas of their master. In moral teaching he mainly adopted the views of Kant; in practical methods he was an ardent disciple of Pestalozzi, whom he regarded as a second Luther. The point on which he laid most

stress was the development of the individual character, the life. Men, he said, were naturally good, and the object of education was to develop this germ of goodness and to form an independent and self-sufficient individuality. But the great service which he rendered to education was the passionate advocacy of a national system of instruction in his speeches to the German people. He saw the German nationality torn asunder by divisions, ground under the heel of a French invader, and he perceived that the true way to its regeneration lay in a really national system of education. This system was to be common to every one alike—rich and poor, male and female. Its conduct was to be the business of the State; it was not only to be intellectual, but moral, not only religious, but æsthetic. Fichte dealt too much in generalities to be the author of a working plan, and his views have never been exactly carried out. But there is no doubt that the force with which he asserted that all classes in the community should be educated, and that it was the duty of the State to see this done, had a great effect in framing that magnificent system of instruction which Germany offers as an example to the world.

Herbart, on the other hand, may be regarded as the founder of modern scientific pedagogics. In the list of German philosophers he stands as the founder of modern German psychology. To estimate the value of his philosophical speculations must be left to others, but there is no doubt that he was the first to see that a national system of education must be founded on a true psychology, and, indeed, that it is impossible to form a scheme of education complete in all its branches until we have arrived at *a certain* knowledge of the true bases of ethics and psy-

chology. Education, regarded from this point of view, is the sum of all the other sciences. The fundamental principle of education is the teachableness of the pupil. Not that all children can be taught everything. Their capacity is bounded by the limits of their individuality and by the circumstances of place and time. Although the educator cannot effect all that he wishes, he must set his level of aspiration as high as possible. The end of education is virtue. This is the realization in each person of the idea of inward freedom ; and this inward freedom is a relation between two things—insight and will. The duty of the teacher is to develop both of these factors, in order that a permanent relation may be established between them. Psychology shows us in what order the faculties of the child are found to develop. First we have the power of sensation, then the memory, which retains traces of these and can reproduce these traces. The constant questions of the young child are indications of the nascent power of judgment ; an attempt to bring his ideas under higher generalizations, and to give them names. Then his personal likes or dislikes manifesting the growing will, which is dangerous if not controlled from the first. The æsthetic judgment which, according to Herbart's philosophy, is the source not only of the higher pleasures of art, but of morality, is developed last. Soon the child asks fewer questions and devotes himself to action, seeking more and more the companionship of children of his own age. His individuality becomes more pronounced. In attempting to understand the capacity of children we are met with this difficulty, that they are so deeply affected by the environment in which they find themselves. They have one character for their family,

another for the school, another for their companions at play. Each of these may become, under certain circumstances, the determining character of their lives. Herbart divides education into three branches—government, instruction, and discipline.

1. *Government.*—A child comes into the world without will, incapable of moral action. He is led by a natural impulse to actions which may be harmful both to others and to himself. These actions it is necessary to restrain, but in doing this we must avoid conflict. We must only keep this end in view to secure order and to foster the tender soul. The chief means for effecting this object is to keep the child employed. Such is the end of government; what are the means to be employed?

First, threats; but these may be of no effect upon a strong nature, and they may dangerously cripple a weak one. Therefore, they must be used with great caution. Second, surveillance; but this is a burden to both parties; it is also dangerous to the child, because it prevents him from learning a thousand things by himself, and because the closer it is the more it will weaken or disturb his character. Watchfulness is only suited for the very earliest years, or for seasons of especial danger. There remain, then, two engines of government—authority and love. Authority must be that of a superior character, love must be grounded on sympathy, and must not degenerate into weakness.

2. *Instruction.*—The value of a man lies not in knowledge, but in will. But the will has its roots in the intellect, and therefore the sum of a man's intellectual acquisitions are of importance to his character. Instruction, therefore, comes before discipline, and they have this in

common, that they are concerned with the future, whereas government has to do only with the present. The end of instruction is the production of virtue, but a nearer object is the production of many-sided interests. An entirely uneducated person cannot be virtuous ; the brain must be first aroused. Instruction must be carried out first with energy, in order that the interest may be awakened ; then with breadth, in order that the interest may be many-sided ;. and lastly, with unity of purpose, in order that the intelligence may not be distracted. The unity of the individual must not suffer by the many-sidedness of the training he receives. The mind is capable of studying intensely one thing after another. But we must take care that these different acquirements do not merely rest side by side, but that they meet in the unity of the individual consciousness. Consciousness is the bond which holds these attainments firmly together ; it is the middle point to which they all converge. A piece of knowledge thoroughly acquired is clear and intelligible ; it becomes dim when compared with other knowledge which does not belong to it. Therefore for the sake of clearness we must keep our lines of knowledge separate. Again, complete self-consciousness is clear and undisturbed. A clear self-consciousness, combined with many-sided acquirements, is the result of system, and is attained by method.

Herbart explains at length, and in the phraseology of his school, that all teaching to be effective must set the mind of the learner in independent motion. Perception of the matter taught is not enough ; there must be apperception, that is, the learner must recognize it and assimilate it to his previous experience. He must add

something of his own to the ideas presented to him by his instructor. Interests may be divided into six classes. 1. The empiric interest, by which we perceive the manifold phenomena which the world presents to us; 2, the speculative interest, by which we become devoted to the pursuits of some particular science; 3, the æsthetic interest, by which we attach ourselves to painting, sculpture, poetry, either lyric or dramatic, or music; 4, the sympathetic interest, by which we care for our family, friends, or countrymen, but not for the human race in general; 5, the social interest, by which we attach ourselves to political parties and cliques; 6, the religious interest, which induces us to become attached to particular dogmas or sects. Each of these interests, although good in itself, may become narrow and one-sided. This it is the duty of education to be on its guard against, and to prevent. Instruction may be either analytic or synthetic. We must make use of both these means. The pupil cannot reach by analysis the same wealth of attainment as he can by information imparted by the teacher. On the other hand, the mere imparting of information will not unite itself with the individual consciousness except in the most gifted natures, unless it be combined with the practice of analysis.

3. *Discipline* is concerned with the future of the pupil. It rests on hope, and shows itself in patience. It modifies government, which might perhaps effect its purpose sooner with greater severity; it modifies instruction in cases where this makes too great demands on the powers of the individual. It requires for its exercise tact and natural cheerfulness. Instruction and discipline taken together make up education. The object of discipline is to

strengthen the character for the purposes of morality. Differences of character depend upon differences of will. When a man looks into his mind he finds something already there, certain tendencies, certain signs of strength and weakness, resulting from his natural disposition. This is the objective part of the character. But by the contemplation of his qualities arises a new will, which by distinction from the other should be called the subjective part of his character. Objective characters differ very greatly, and need for their improvement both stimulus and repression. These it is difficult to apply, and therefore the objective part of the character only attains with trouble a condition of harmony with itself. Such a harmony is produced by the operation of what Herbart calls will-memory. The subjective part of the will is gradually formed by the adoption of certain modes of action under similar circumstances; and as this part of the will develops, a man acquires for himself certain maxims and principles, which give rise to motives. To make these motives effectual often requires a struggle, and the strength or weakness of a character is shown by the more or less complete harmony between the objective and the subjective will. Morality resides in both. However well disposed a child may be, and however much his objective will may be full of good tendencies, we shall not secure the operation of these, and the exclusion of the bad tendencies which are to be found in every one, unless we support them by good principles, which belong to the subjective side of the will. These principles are produced by the æsthetic judgments, by which the child is led to distinguish between good and evil. Unless these judgments are clear, strong, and complete, the principles have not firm

foundation in the pupil's mind, and are little better than words learned by rote. On the other hand, if the æsthetic judgments of the will are interwoven with the whole of the interest which springs from experience, intercourse with teachers, and instruction, then a natural enthusiasm for virtue is produced, and this is strengthened by the logical cultivation of maxims and their systematic use in the course of life.

Discipline has three functions—to restrain, to determine, and to regulate. Restraining discipline springs from that memory of the will which is the opposite of the levity generally attributed to youth. The first manifestation of restraining discipline is government, and the obedience which it produces. The object of determining discipline is to secure that the pupil shall choose, and not the teacher in his name. Regulating discipline begins when the subjective character begins to show itself. It appeals to the child's reason, and tries to produce consistency of action. By these means we produce in the mind first æsthetic judgments of the will; that is, the habit of preferring good to evil as a matter of taste and choice, and lastly, reasoned morality, which is the final stage. It will be seen that the truth or falsehood of Herbart's principles of education must stand or fall with the truth or falsehood of his psychology. Whatever may be his ultimate influence, he deserves the credit of showing that a right philosophy of education can only be founded upon a right system of psychology.

CHAPTER XII.

THE ENGLISH PUBLIC SCHOOL.

No survey of educational theories, however brief, would be complete without some consideration of that form of education which is most essentially English, and which is regarded both by ourselves and by foreigners as a representation on a small scale of our national life. It would be impossible within these narrow limits to do anything more than to touch on certain aspects of the subject. It will be enough to show how our public schools came into being, what they were like at the time of the revival of learning, the principal changes which they have undergone since, and, in conclusion, to consider whether they can be accepted as the best type on which a comprehensive scheme of national secondary education should be moulded. For this purpose no schools need be mentioned except the three colleges of Winchester, Eton, and Westminster. They have this in common, that they have all arisen under the shadow of royal palaces. William of Wykeham, in founding his magnificent college, was only restoring to the royal city of Winchester a place of education which had flourished there from time immemorial. The school was opened in 1393, seven years after the opening of New College at Oxford. The two institutions were intended to go hand in hand together; each was to be a check and an assistance to the other. New College students were prepared at Winchester, and it was the duty of the university foundation to notice and to demand the correction of any shortcomings

which might be observed in the conduct of the school. It is a strong testimony to the unity of English history and to the permanence of our institutions that these two foundations now, at the end of five hundred years, hold a rank second to none in their departments of instruction.

Eton College, with its sister, King's College at Cambridge, was founded about forty years later, on the avowed model of Winchester. As the sainted Henry looked from the terrace of Windsor upon the low-lying meadows of the Thames valley, and upon the pilgrimage church of Our Lady of Eton, he determined to establish there an institution which should give to his name a lustre which it was never likely to receive from statesmanship or war. The scheme of the two colleges occupied the thoughts of the monarch during his whole life. He was only nineteen when he laid the first stone of his design, and his full plan for its completion occupies his last will and testament. Eton was from the first a school for the governing classes, the gentry of England. It is said that Henry VII. was educated there. The Paston Letters show us the son of a Norfolk squire going thus far afield for his education. Not until some time later did Eton become, *par excellence*, the court school of England, but it was not, like so many schools which now stand in the first rank, developed from a grammar school, and changed, from a position of mere local usefulness, to one of imperial importance.

Westminster, founded in 1541, is a specimen of the abbey school, changed to suit Protestant times. The scholars are domiciled in the old dormitory of the Benedictines, the dean and chapter exercise superintendence *over* its conduct. But by its position at Westminster,

close to the Houses of Parliament and Whitehall, the school acquired an importance for which it was not originally designed. Queen Elizabeth probably cared more for Eton than for Westminster, although the latter school owes her so much. Under the regime of Busby, and even before it, Westminster clung closely to the fortunes of the Stuarts. It was not till the reign of Anne, or perhaps till that of George I., that Eton began to gain upon its rival in fashion and popularity. The residence of George III. at Windsor, and his great attachment to Eton, placed that school indisputably in the first place, and it would now be to many people difficult to imagine that there was ever a time when its rank in the country, as compared with Westminster, was reversed.

Winchester was founded in the first instance for the main purpose of teaching grammar, the first of the seven liberal arts, but there is no difficulty in reconstructing its curriculum exactly, because we have a detailed account of the education given both at Eton and at Winchester in the middle of the sixteenth century, after the Reformation, and we have good reason to believe that the education given at Westminster at the same time was of a very similar character.* At this period the school consisted of seven forms, of which the first three belonged to the upper and the last three to the lower school, the fourth, or centre form, belonging partly to one division and partly to the other. At Eton, in the present day, the highest form is the sixth—the remove, between the fifth and fourth forms, occupies something of the position which the old fourth form occupied. The fourth form is now placed under the jurisdiction of the lower master,

* Maxwell Lyte, "Eton College," ch. viii.

whereas the third, second, and first forms have almost, if not entirely, ceased to exist. At five o'clock the boys were awakened, by one of the *præpostors* or *monitors*, with the cry of "Surgite;" while dressing they chanted Latin psalms. Each boy had to make his own bed and to sweep the floor. They then went down stairs two-and-two to work. At Winchester there was a morning service, at Eton none. The usher read prayers in the long dormitory at six; work went on till nine, when there was probably a short breakfast. At ten o'clock the boys were summoned for prayers. Dinner was served at eleven, and the boys marched to the hall and back again in double file. They then worked continuously from twelve to three, they played from three to four, had lessons from four to five, and then supper. From six to eight the boys worked under the superintendence of the monitors, having at seven a draught of beer and a slice of bread. At eight they went to bed. In the summer more time was allowed for recreation; on Friday the scholars were punished for the faults they had committed during the week, and on that day and Saturday they were examined. Latin was almost the only subject of study. The lower boys had to decline and conjugate words, and the upper boys to repeat rules of grammar. Some Latin composition was done every day—themes by the lower forms, verses by the two upper. In the first form they studied Cato and Vives; in the second Terence, Lucian, and Æsop, the last two in Latin; in the third, Terence, Æsop, and Sturm's selections from Cicero's letters; in the fourth, Terence, Ovid's "Tristia," and the epigrams of Martial, Catullus, and Sir Thomas More; in the fifth Ovid's "Metamorphoses," Horace, Cicero's letters,

Valerius Maximus, Lucius Florus, and Justin; in the sixth and seventh, Cæsar's "Commentaries," Cicero "de Officiis" and "de Amicitiâ," Vergil, Lucan, and at last the Greek grammar. It will be seen that this education is entirely of the humanistic type as conceived by Sturm of Strasburg.

Passing over two hundred years, we have again a complete account of the education given at Eton about the year 1770. As it was then it remained unchanged until within the memory of men now living. During that interval, while the education still remained humanistic, it had undergone considerable alteration, principally owing to the success and influence of the Jesuits. Their arrangement of the week had been copied. Monday, Wednesday, and Friday were whole school days, Tuesday a whole holiday, Thursday a half holiday, and Saturday a "play" at four, that is, something between the two. One change of great importance had been introduced in the shortening of the school lessons. The regular lessons on a whole school day were from eight to nine, from eleven to twelve, from three to four, and from five to six. Eighty years later these hours had dwindled down to three quarters of an hour, and sometimes did not exceed half an hour. The first school began at about seven. On whole holidays the boys might lie in bed till nine. They had chapel at eleven, and again at three. This was the regular course of things, but as in the case of the Jesuits it was terribly broken in upon. All saints' days were holidays, and the eves of saints' days half holidays; to these were added founders' days and court days. The system of shifting the work which ought to have been done on one day to another was only an additional cause

of idleness and confusion. The head master taught the sixth and fifth forms together—about 120 boys. In a regular week the boys had ten construing lessons, and seven saying lessons. The authors included Homer, Lucian, Vergil, Scriptores Romani, a selection book of Latin prose and Poetæ Græci, a very elegant compilation of Greek lyric poetry. Nearly all the poetry construed was supposed to be said by heart. On Saturday and Monday mornings the sixth form and upper fifth construed part of a Greek play, which was nearly all the provision made in the school for teaching Attic Greek.

We are told that the sixth and fifth forms were supposed to read in their leisure hours certain books of "erudition," as the Jesuits would call it, for the making of a complete scholar. All fifth form boys wrote three Latin exercises a week: an original theme, a copy of original Latin verses, and a copy of Latin lyrics on the same subject. In the sixth form Greek iambics took the place of lyrics, but this was probably a late addition, and it may be doubted whether the Greek was very pure Attic. The books read in the other forms were the Odes of Horace, Pomponius Mela, Cornelius Nepos, Farnaby's Selection of Epigrams, Cæsar, Terence, and Greek Testament. The Greek and Latin grammars were learned by heart. For three hours in the week the younger boys were taught writing and arithmetic, some of the fifth form geography or algebra, and those who stayed long enough went through parts of Euclid. No mention is made of history, and none of science.; competition was not carried to such an extent as in the Jesuit schools. The boys were tried on passing from one form to another. A system of money rewards for good boys was in force, paid

by the dames, but put down to the account of the parents. The system of "challenges" obtained in the lower part of the school, and flogging was established as a recognized mode of punishment. The præpostors, or sixth form, had large monitorial powers, which they have retained at Winchester and at Harrow, but have lost at Eton.

Such were the studies of Eton in her palmiest days, the days of George III., when she possessed, in conjunction with Christchurch, the undisputed privilege of training the statesmen and rulers of England. We see that it is a purely humanistic system, founded on the basis of Sturm, but modified and rendered milder and more elegant by the example of the courtly Jesuits, who were then the favored preceptors of the French. The great merit of this system, with all its defects, was that every one believed in it. The energy of private tutors made up for its more serious intellectual deficiencies, and the introduction, by accident or design, of the principles of Locke made the school a training ground for manliness and independence of character; only a few discontented critics wished for anything better. A clever boy began Latin at six, and Greek at eight; from his earliest years he was taught that a scholar and a gentleman were synonymous terms; he went to a public school at nine or ten, or sometimes even at six: as he was examined in the classics for entrance, his father stood by with tears in his eyes. His Latin verses were the admiration of his school-fellows, his English verses were as correct and polished as his Latin. No one had any doubt as to the excellence of the product; the supply was not large, but it was sufficient. It was enough to furnish a little culture to the Cabinet, a little refinement to the Bar, a little

learning to the Church, and enough scholarship to schoolmasters to keep up the yearly tale of Greek and Latin versifiers. All this is now changed. Boys often do not begin Latin till they are twelve, and, if we are to believe what we are told, learn little Greek or none at all. They go to a public school at the age at which, three hundred years ago, they used to go to the university; they stay at the university till they are grown men. Parents, so far from preparing their sons in the subjects in which the public schools will examine, try to redeem the time which they fear will be inevitably lost. They do their best to teach their children everything which they will not learn at school; they make them learn French, music, and history; the well-educated boy on entering school is placed according to his classical attainments, and is made to live with companions who have received neither the old learning nor the new. Such are the disadvantages of a state of transition. Unless we make haste to organize our school education on some intelligible basis, we shall arrive at a condition in which our Cabinet is not cultured, our Bar is not refined, our clergy is not learned, and our schoolmasters are not scholars.

The study of the history of educational theories will have been of little service if it does not show us that any system of education to be efficient must be arranged on some well understood plan, in which the end is kept in view from the very first. Whether we prefer the humanistic, the realistic, or the naturalistic method, whether we try to give a classical education, a scientific education based or mathematics, or a modern literary education based on modern languages, we shall only succeed if we *direct our efforts* steadily to the attainment of our ob-

ject. At present we too often attempt to teach everything at once, and therefore teach nothing; we embrace all the subjects of a liberal education, and accomplish the learning of none of them.

Next to the conflict of studies, the most interesting question connected with our public schools is the type which is best suited for a national system of education in England. If we desire to bring liberal education within the reach of all classes, and to scatter schools all over the country, of what nature should these schools be? The type most in favor with us at the present day is that of large boarding-schools. But such schools are, in their present size, the growth of comparatively few years. The Rugby of Dr. Arnold scarcely rose above three hundred students; and the local grammar schools, in which so many great men have been educated, must always have been small in numbers. How far, then, is it possible at large boarding-schools to carry out any of those precepts which the history of education presents to us as desirable? The one essential condition to the acquisition of wider knowledge is a desire of learning in the pupil. The chief defect in all schemes of quick and easy education is that they presuppose no resistance on the part of the learner, whereas every schoolmaster knows that more than half his time and skill is taken up with overcoming that resistance. In the old days of public schools there was much idleness, boys were left much to themselves, but those who read at all were accustomed to read in a literary spirit. Some corner of the library, some favorite shelf of books, perhaps the peculiar care of some exceptional tutor, sowed in the mind of an able boy the first seeds of wide and commanding learning. There are many

traces in old letters and diaries and school papers of the existence of this real love of solid knowledge. The "Microcosm" of Canning, the "Etonian" of Praed, the "Rugby Magazine" of Clough, are evidences of the existence of a literary spirit. Boys took a lively interest in each other's compositions, whether in living or dead languages. A good copy of Latin verses would be passed from hand to hand, and copied into a book. Several extract books of this kind are extant, dating from the latter part of the last century. The excellence which is now too often valued only as a means of obtaining marks and scholarships was then estimated at its own intrinsic worth. It is a question whether this has not to some extent passed away. School magazines are devoted to school news, and rarely contain compositions fitted for a place in permanent literature. It is complained that boys seldom read for their own amusement, and are still less often in the habit of discussing points of literary criticism and style. Debating societies abound at public schools, but it may be doubted if the discussions in them, although carried on with readiness and fluency, exhibit any of the higher qualities of literary excellence.

Nor can it be wondered at if this is the case. The chief aim of the head master of a large boarding-school is to keep his pupils constantly employed. He has come to the conclusion that the only remedy for the evils which result from mixing so many students together is that they should have as little time as possible to themselves. Some head masters have kept cards arranged in pigeon-holes on which is written what every boy in the school ought to be doing in every one of his waking hours, both in work *and play*. This is little better than the French system of

extreme surveillance. Under this system a boy has no leisure for thought ; work under the constant stimulus of competition, play organized with an elaborate scale of graduated prizes, school business and school discipline occupy the whole of his busy life, so that a lad of nineteen at the head of a great school, if he be conscientious and energetic, is as hard-worked as a man of thirty. The common enemy of boys and masters is the lounger or the "loafer" who wanders about doing nothing, whose feeble interest in the affairs of life is never fanned into an effective flame, who grows up to be a burden to himself and others. But we must not confound him with the serious, though perhaps eccentric student who shuns the paths of men, and delights in the river side, and the slope of the grassy bank, and the shade of protecting elms. In their efforts to get rid of the lounger, schoolmasters are in danger of throwing out the child with the bath, and of tearing up wheat and tares together with the same impetuous grasp. What are the results of a training of this kind? A healthy mind in a healthy body. But the healthy body is too often fitted only to exist in the open air, and will break down under the strain of a sedentary profession, while the healthy mind has no furniture but a complex of prejudices which passes under the name of common-sense.

Examples are not wanting in the senate and elsewhere of public school and university men whose laborious lives have been the appropriate sequel of a more laborious youth. But our modern public school boy too often knows no such experience. His path of virtuous progress is marked out with fences and sign-posts, the road is macadamized with guides and extract books, and made

smooth and easy by marks and examinations. Nothing is left to his own enterprise and ingenuity; he can always tell exactly where he is, and is sure to receive at the end of the measured mile the applause of his approving backers. He knows how to *get up* anything. He is convinced that the whole duty of life is to be *doing* something—that is, to be going in for some competition. To sit in an easy chair and read a book is laziness in his eyes. His conversation and his thoughts are almost entirely about games. There is, doubtless, much to admire in this purely English product; he is far superior in manliness and vigor to a Frenchman or an Italian. But as he advances in life, and leaves his boyhood behind him, the gifts which he has stored up for himself become of less value. At the university, with all his hard work, he cannot contend against those who have worshipped knowledge with a more jealous love. He misses the broad and convenient highway, with its symmetrical milestones and its regular relays of official plaudits. He has to make his way either across country where he must choose his own line over banks and fences, or, still worse, through a primeval forest of unregulated study, not yet subdued and made accessible for the passage of man. The most valuable part of university training, the clash of mind upon mind, is closed to him, because his studies do not represent ideas to his intelligence, and he has never been accustomed to regard the things he has had to learn except as a wholesome exercise, to be varied with other exercises of a different kind. The tripos and the schools awaken his ardor, but he soon finds that even in them something more than mechanical plodding is necessary *for success*. In the world he is not likely to make much

of a figure unless chance gives him scope for active enterprise.

If this is a fair picture of the public boarding-school system, can we regard it as satisfactory? It may be answered that although the few may lose something, the many have been gainers, that our public schools have been entirely reformed, that the idleness and dissipation common thirty or forty years ago exist no longer. But in all questions of the higher education we must consider not the many but the few; we must test our system by seeing whether it is really capable of producing work of first-rate excellence. In the words of Mr. F. D. Maurice,* "All experience is against the notion that the means to produce a supply of good ordinary men is to attempt nothing higher. I know that nine tenths of those whom the university sends out must be hewers of wood and drawers of water, but if I train the ten tenths to be so, depend upon it the wood will be badly cut and the water will be spilt. Aim at something noble, make your system such that a great man may be formed by it, and there will be a manhood in your little men of which you do not dream." Has not therefore the time arrived for inquiring carefully whether our present system of large boarding-schools is the most desirable, and whether we are not in danger of losing in the next generation some of our most valuable elements of culture unless we adopt an organization which preserves and guards the simple love of work and of acquisition of knowledge which is the natural condition for a healthy child? The best means of effecting this is by day-schools, and no great impulse will be given to the

* Quoted by J. S. Mill in his article on "Civilization," from the novel of "Eustace Conway."

secondary education of England unless a network of day-schools is drawn over the country. Day-schools have many advantages over their rivals. They are far cheaper, because the boys board and lodge at home, and the masters are willing to work for a smaller remuneration because they have so much leisure time on their hands. Some of the most difficult questions of discipline do not arise in them, and the pursuance of their educational objects is undisturbed by any conflicting currents. The home life is not lost, and the child is allowed to grow up in the bosom of his family. Great indeed is the responsibility thrown upon the home, and if that is bad the master's work is undone, but if it be good and studious it forms his most valuable auxiliary. Much of the industry and learning of Scotland is attributable to this cause. The boy on his return home rehearses to his parents what he has learned from his master, and a keen interest is felt in the place which he holds in his class. If our experience of English homes is different, it is because we have not learned the habit of superintendence, and because we are too ready to throw off responsibility when our children go to school, and to think that their education is a matter which no longer concerns us.

In countries where a system of day-schools is understood, children become a source of education to their parents ; they either lead them over the paths which they themselves have trodden in earlier years, or introduce them to new fields of culture, which might have remained forever closed to them. It may be urged that this is only possible in a simple state of society, and that in times of greater wealth and more complex civilization the *home is not* fitted to take its part in the work ; the chil-

dren of a successful barrister, of a hard-worked member of Parliament or man of business, cannot receive their father's care, and in many cases had better be at a boarding-school. If this be true, the school should be as like a home as possible in its essential particulars, offering indeed a wider experience and opportunities for a fuller play of character, but never losing the simplicity and industry which are apt to disappear in large institutions. It may be true that the most distinguished men in England, both in the universities and in the world, have been educated at large boarding-schools ; but the experiment of day-schools has never been fairly tried. If the flower of English youth go habitually to boarding-schools, it is not strange that the most successful Englishmen come from these establishments. Of this we may be certain, that the greatness of a country is dependent upon her schools more than anything else, and that, unfortunately, not in the present generation, but in the next. What lot are we preparing for our children ? We are extending education to the masses, we examine more than we ever did before, we scarcely leave a corner for the dunce or the sluggard to creep into. But all this is of little worth unless the highest culture of the nation is maintained at its proper level. The *lycées* of France send out every year masses of students modelled to order and prepared to pattern, but whatever academical enlightenment France can boast of during the last fifty years she owes to one institution of about a hundred students, the École Normale. Is it desirable, in the interests of the future of our country, that we should continue to increase our large public boarding-schools, in which it is difficult to secure that literary interest should ever be paramount, or should

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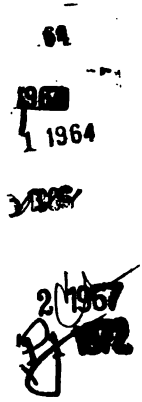

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